This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

3 3433 06636849 3

VEC

Stephens

ESTIMATING:

A METHOD OF

PRICING BUILDERS' QUANTITIES

FOR

COMPETITIVE WORK.

By "A PRACTICAL ESTIMATOR"
(GEORGE STEPHENSON),
AUTHOR OF 'REPAIRS,' ETC.

SECOND EDITION, CAREFULLY REVISED.

LONDON:
B. T. BATSFORD, 52, HIGH HOLBORN.
1890.

33229

ASTOR LIBRARY
MAY
10
1895
NEW YORK

PREFACE TO FIRST EDITION.

ONE of the most difficult tasks a builder has, is to frame a careful estimate for work he is tendering for, even when the quantities are supplied. It has been the subject of oft-repeated remarks that there should be so much variation in the views taken by the several competing firms. This seldom applies to our principal builders, who keep a competent estimating clerk; others do not do this, but leave the work in the hands of an ordinary clerk, or sometimes a foreman, when mostly a price-book is used—a book that may be useful as a reference in certain cases, but which is delusive as an aid to competition. Sometimes the builder himself prices it from a similar source, the result being in either case, as we often see in the lists of published tenders, a variation of 20 to 30 per cent. in six or eight tenders.

I have seen estimates where the joiner's bill, usually one of the largest, has been priced from such a source as I have mentioned at *fifty per cent.* above the prices used by competent men, and yet the estimate has been only about *fifteen* per cent. above the lowest of the others, showing that some of the prices must have been as comparatively low; in such an estimate, I have seen rough timber in lintels, &c., priced at 3*s.* 6*d.* per foot cube, the value being, at 10 per cent. profit, 2*s.* 6*d.*; and the brickwork in the same estimate being priced at 11*l.* 5*s.* per rod, the value being at 10 per cent. profit, 13*l.* 15*s.*; so that, if the work is varied much, more brickwork introduced, and less timber, how stands the chance of profit?

When the quantities are not taken out, and few of the principal builders will take them out themselves in competition, the variation at times is simply enormous—often extending to *one hundred* per cent., and yet the lowest is mostly accepted. In the following work I propose to show how to learn to price an estimate without the use of a price-book: with careful attention, a diligent student may soon learn the groundwork or basis for estimating for work to any extent, and be able at any moment to price a set of quantities without any aid except a pencil or pen and ink.

THE AUTHOR.

November 1882.

PREFACE TO SECOND EDITION.

THIS work has been carefully revised, and the prices altered to those in use at the date of the publication of this edition, and the author trusts this revision will increase its present value to all who use it. The prices quoted in the preface to the first edition refer only to those existing at the time.

GEORGE STEPHENSON.

July 1890.

CONTENTS.

PREFACES .. .. iii, v
INTRODUCTION 1
PRELIMINARY AND PROVISIONS 2
EXCAVATOR AND DRAINS 7
BRICKLAYER 14
MASON 27
SLATER AND SLATE MASON 40
CARPENTER 43
JOINER AND IRONMONGER 58
SMITH AND BELLHANGER 117
PLASTERER 128
PLUMBER AND ZINCWORKER 139
GLAZIER 153
PAINTER 156

Note.—An Index will be found at the end of the Book.

ESTIMATING.

The bills of quantities I use in this volume were supplied by a well-known London Surveyor to Builders to estimate from, and the work was a villa residence at Hampstead; the estimate framed on the prices given was barely 2½ per cent. above the lowest.

It is necessary to offer a few preliminary words of advice before commencing Bill No. 1, and the pricing of it.

When estimating, be careful to read the headings of each bill, as, although they mostly contain the description of materials, they often contain items requiring pricing, and notes that affect the prices of the measurements given in the body of the bill.

It will be necessary to visit the site, and note its surroundings, the facilities for getting materials upon it, the amount of space to work on, the nature of the soil (experience will soon teach you the formation of most of the land round and in London).

The drawings, form of contract, and the specification, must be carefully examined; obtain prices for bricks, sand, and ballast delivered on the site, though it will be better, when well experienced, to wait until the work is secured before obtaining them, as the merchants are more likely to give low quotations when they know you are able to place the orders with them. Where there are specialities, such as a large quantity of iron, cast or wrought, terra-cotta, carving, &c., prices should be obtained, even where experienced.

Many estimates are priced at prime cost, and the profit added in one sum at the end of the summary; but I, for many reasons, prefer the system I give here, of adding the profit to each item, although the 10 per cent. often runs into parts of a penny.

The cost prices are mostly obtained from lists, such as are supplied to builders by their merchants, and the materials are in all cases to be bought for the sums I give.

BILL No. 1.

The first item in this Bill is, Preliminary and provisions:—

All extra works and omissions to be measured and valued at the prices on which the contract is based, and the contractor will be required to deposit a copy of the estimate, fully priced and moneyed out, with the architect for that purpose.

It is not usual to enter any sum to this item.

Allow for making good all defects which may appear within six months after completion, including work injured by frost, &c.:—

This will, of course, vary with the amount of work to be upheld, and is a very speculative item.* I value it in this case at 5*l.* per 1000*l.* of work; and as this estimate comes to about 2000*l.*, say 10*l.*

Insure to the amount of contract in some good fire office:—

It is the practice to set forth in many specifications that the work is to be insured for two-thirds, or three-fourths of the amount of contract; but it will be wiser for the contractor to insure for the *full* amount, as here stated. The rate for buildings in course of erection is 2*s.* 6*d.* for every 100*l.* of value for twelve months; this gives, for 2000*l.*, 2*l.* 10*s.*, to which add 10 per cent.; if for six months only, and in this case I think it would be sufficient, the charge varies from 1*s.* 6*d.* to 2*s.*; it is not usual to insure before the roof is on.

---

* To keep the cost of this item down as low as possible, it is necessary, in the carrying out of the works, to see that they are done carefully: the floors seasoned and properly cramped up, the joiner's work made of well-seasoned deals, &c., framed together in skeleton, and left some time before glueing up; the lead and slate work water-tight, hot-water and other pipes tested, &c.

Provide water for the works:—

This will vary very much with the district the work is done in; the charges of the different water companies differ to the extent of 200 per cent. This work is in the West Middlesex Water Company's district, and their charge is 3*d.* in the £ on the rental value of house, for six months' use, and 5*s.* for opening ground and providing ferrule. Put the rent at 7½ per cent. on cost, i. e. 150*l.* per annum; this gives 1*l.* 17*s.* 6*d.*, the length of lead pipe under road, say 30ft. of ¾ in., a few lengths of iron pipe inside hoard, and a ball-cock and ball.

	£	*s.*	*d.*
Cost of water	1	17	6
Opening ground, &c.	0	5	0
30 ft. ¾-in. pipe at 10*d.**	1	5	0
30 ft. ¾-in. iron pipe at 6*d.*	0	15	0
Ball-cock and ball, and joint	0	6	0
Union, iron to lead, and joint	0	3	3
	4	11	9
Ten per cent. on two first items	0	4	3
	4	16	0

From which there is really the credit of material at finish.

Give notices to District Surveyor and the Local Authorities, and pay their fees:—

The following is a list of fees payable to the District Surveyor under the Metropolitan Building Acts:—

FEES FOR NEW BUILDINGS.	£	*s.*	*d.*
For every building not exceeding 400 square feet in area, and not more than two stories high †	1	10	0
For every additional story	0	5	0
For every additional 100 ft. or fraction of such 100 ft. (but no fee shall exceed 10*l.*) ‡	0	2	6
And for every building not exceeding 400 square feet in area, and of one story only in height, the fee shall be ..	0	15	0
Bye-laws	0	5	0

---

* The detail of some of these prices is given in the Plumber's Bill to follow.

† The basement floor is counted as one.

‡ Where buildings are divided by fireproof divisions or party-walls, separate fees are claimed by the surveyor.

For further particulars see "General Conditions":—

This is an item which really means, on the part of the surveyor, "I have now included all that I consider needs a price attached to it." The contract and specification, however, should be referred to by the careful estimator, to see if there is anything there not "taken out" in the quantities, and requiring a price to be included for it, though it is seldom anything is missed by a competent surveyor. The builder should notice the time for completing contract and method of payment. Many surveyors now insert these two items in the preliminary bill.

PROVISIONS.

The following provisions are to be expended as the architect may direct, or to be deducted in full from amount of contract:—

Provide the sum of 80*l.* for stoves and chimneypieces.
Provide the sum of 8*l.* for tile hearths.
Provide the sum of 40*l.* for hot-water apparatus, bath, and lavatory fittings.
Provide the sum of 10*l.* for laying on gas.
Provide the sum of 15*l.* for cupboard fittings.
Provide the sum of 21*l.* 12*s.* for 133 ft. of lead-lights, and fixing.
Provide the sum of 50*l.* for incidental work to be ordered by the architect.

These provisions are inserted in the fairest manner possible, as when expended through the contractor he will be entitled to have his profit added to the amount paid by him. It is a custom with many architects to say of provisions: "These prices are *P.C.*, and the contractor must add his profit, &c." If the work is *wanted* by the contractor, he seldom adds anything to the so-called *P.C.* prices, but relies on the trade discount for a profit. Where the discount is allowed, this often leads to a dispute between architect and builder as to whether *P.C.* means *list* prices or nett after lucting the trade discount.

BILL No. 2.

EXCAVATOR AND DRAINS.

The excavating to include any necessary strutting and planking:—

This item is quite a speculative one as to value, and I have added it to each item requiring it.

Before commencing the pricing of this bill, it is necessary to draw attention to a very needful precaution. Be sure to carefully read the dimension you are about to price, as surveyors vary in their system of "billing." Note whether yards or feet, cube, super., or run.

122 yds. cube. Excavate for basement, and wheel and deposit on site:—

The nature of the soil here is clay; this the estimator's visit to the site will have taught him; the cost of digging and wheeling clay is about 8*d.* per yard cube if let "piecework" to the men. If done daywork, more. A liberal profit should be added to excavating, as there must be a foreman on the site, superintending this one trade, and the items are not large. A small amount must be added if strutting be necessary. This, the sections and the visit to the site will determine. Put the cost of digging at 9*d.* daywork, strutting, &c., 1*d.*, and add 2*d.* for profit and foreman, making 1*s.* per yard cube in all.

This price is more than is given in price-books; but experience will, I think, prove I am correct. There is, in this excavator's bill, a query whether any allowance has been made for slopes, or whether he considers that, if the sides are strutted, they do not require to "batter."

Light soils, such as loam and mould, can be let at 6½*d.* to 7*d.* per yard cube, and where the quantities are much larger than in this bill they can be done at a little lower price.

57 yds. cube. Excavate to surface trenches, part fill in and ram, and wheel and deposit the remainder:—

Take the first item as a basis, and add half the value of filling and ramming. Filling and ramming is worth *6d.* per yard—this presumes that about one-half of the excavated clay, &c., is to be wheeled back and rammed in over the footings, &c.; half the value, being *3d.* per yard, added to first item, makes *1s. 3d.* per yard for this.

21 yds. cube. Excavate to basement trenches, part fill in and ram, and wheel and deposit the remainder:—

Add a further sum of *3d.* for deeper digging to trenches. The cost of this is a little over *2d.* and where there are large quantities it can be let at *2d.*, or at one sum inclusive with the other digging.

274 yds. super. Excavate vegetable soil 12 in. deep, and wheel and deposit on site:—

As this is likely to be grass land, it is worth as much as the first item in clay per yard cube, as you have to cut through the turf; if it be in mould only, then you can price it at *2d.* less per yard cube; pricing this 12 in. deep, i.e., one-third of a yard cube to the yard super., at *1s.* per yard cube, it comes to *4d.* at this.

30 yds. run. Excavate for pipe:—

This refers to a narrow and shallow trench for water and gaspipes about 2 ft. deep, and is worth *1d.* per *foot* including profit, i.e., *3d.* per yard run.

11 yds. cube. Hard dry material filled in and rammed under pavings:—

This is the broken brick and dry rubbish that accumulates on the site, spread and levelled to form a dry and *firm bed for stone* and other pavings. To buy such rubbish the cost would be about 4*s.* per yard cube; but as you have it on the works, it would not be necessary to charge for any more than the labour, say 2*s.* per yard to carry, break up, spread and level, and ram, including profit. This is priced low because there is not more required than I think would be found on the works; I do not think it would take 11 yards for a house of this size. This ought to be taken super., to show the amount of labour more clearly.

47 yds. cube. Concrete formed of 5 parts of hard burnt ballast or clean gravel to 1 of ground stone lime:—

Here the prices of lime and ballast are necessary. Ground grey lime costs, delivered at Hampstead, 13*s.* per yard, and ballast, 7*s.* 6*d.*

	£	*s.*	*d.*
5 yards of ballast at 7*s.* 6*d.*	1	17	6
1 yard of lime	0	13	0
Divide by 5)	2	10	6
	0	10	1
Cost of labour	0	1	2
P.C.	0	11	3

But, as ***burnt ballast*** may be used, this price can be reduced to the following:—

	£	*s.*	*d.*
5 yards of burnt ballast at 3*s.* 6*d.*	0	17	6
1 yard ground lime	0	13	0
Divide by 5)	1	10	6
	0	6	1
Cost of labour	0	1	2
	0	7	3
Ten per cent. profit	0	0	8¾
	0	7	11¾

52 yds. super. concrete, 6 in. thick, levelled for paving :—

This may be priced at the same rate as last item, being 6 in. thick—that will be 1–6th of 7*s.* 11¾*d.* ; add for additional labour spreading, 1½*d.* per yard—in all 1*s.* 5½*d.*

33 yards super. Level and ram surface for yard-paving and lay burnt ballast, 6 in. thick, levelled and rammed, and the surface grouted with lime :—

Level and ram is worth 2*d.* per yard super.

	£	*s.*	*d.*
One-sixth of a yard of ballast at 3*s.* 6*d.* ..	0	0	7
Labour as above	0	0	2
Ditto, laying ballast	0	0	2
Grouting, including lime	0	0	3
	0	1	2
Ten per cent. profit	0	0	1½
	0	1	3½

33 yds. super. tar-paving, 2½ in. thick, laid in best manner and well rolled :—

The cost of tar-paving is 2*s.* to 2*s.* 3*d.* per yard super., laid complete in fair quantities; but this being a small quantity, will cost 2*s.* 6*d.* to 2*s.* 9*d.*, say 3*s.* with profit.

DRAINS.

106 ft. run 4 in. glazed stoneware drain-pipes, half-socketed where required, jointed in cement, and puddled round with clay; and excavation, average 2 ft. deep, and filling in and ramming :—

The cost of 4 in. drain-pipes delivered on site is 3*d.* per foot run, at 50 per cent. off list; the digging and filling costs 1*d.* per foot run for each foot in depth, i.e., 2*d.* per foot run 2 ft. deep; laying, including cement and puddling, 2*d.* per foot; to these add 1*d.* for profit, making 8*d.* in all.

34 ft. run 4-in. drain-pipe, &c., as last, but digging 4 ft. deep :—

Add to the last item 2*d.* for deeper digging, making 10*d.*

30 ft. run 6-in. drain-pipe, &c., as before, and 3 ft. digging:

	£	s.	d.
Cost of 6-in. drain-pipe per foot	0	0	4
Digging 3 ft. deep	0	0	3
Laying in cement and puddling in clay (a little more than 4 in.)	0	0	2½
	0	0	9½
Add profit 10 per cent.	0	0	1
	0	0	10½

38 ft. run 6-in. drain-pipe, &c., all as last, but 6 ft. digging:—

To the last item add 3*d.* more for deeper digging, and say 1*d.* for battering (i.e., sloping the sides to keep them up), and for extra width of trench in consequence, and extra profit, making 1*s.* 2½*d.* in all.

30 ft. run 6-in. drain-pipe, &c., as last, but 10 ft. digging:—

	£	s.	d.
To the last item of	0	1	2½
Add for 4 ft. deeper digging	0	0	4
Add for strutting sides, including use and waste of timber	0	0	6
Add for throwing last 4 ft. one stage, it being too deep for a man to throw out direct, 6 feet being the limit set down for one throw	0	0	2
	0	2	2½
Add profit on last items	0	0	1½
	0	2	4

20 ft. run 6-in. drain-pipe, &c., as last, but excavate in road, average 13 ft. deep, and making good:—

	£	s.	d.
To the last item	0	2	4
Add still deeper digging (this can be done with one stage)	0	0	3
Add cost of breaking up and re-metalling roads, and watching for one night may be needed	0	0	6
Add for extra strutting, as the trench must be carefully strutted	0	0	3
	0	3	4
Add profit on last items	0	0	1½
	0	3	5½

No. 5. Extra for 4-in. bends :—

This is, add only the extra cost of bend over the cost of 4 in. drain-pipe.

	£	s.	d.
Cost of 4-in. bend	0	0	10½
Less cost of 4-in. pipe	0	0	6
	0	0	4½
Extra labour laying, say	0	0	2
	0	0	6½
Add 10 per cent. profit	0	0	0¾
	0	0	7¼

No. 2. Extra for 6-in. bends :—

	£	s.	d.
As last, add extra cost of bend	0	0	5½
Extra labour	0	0	2
	0	0	7½
Add 10 per cent. profit	0	0	0¾
	0	0	8¼

No. 3. Extra for 4-in. junctions :—

	£	s.	d.
Cost of 4-in. junction	0	1	0
Less cost of 4-in. pipe	0	0	6
	0	0	6
Extra cost of laying	0	0	2
	0	0	8
Ten per cent. profit, say	0	0	1
	0	0	9

No. 7. Extra for 6-in. junctions :—

	£	s.	d.
Cost of 6-in. junction	0	1	4
Less cost of pipe	0	0	8
	0	0	8
Extra labour laying	0	0	2
	0	0	10
Ten per cent. profit	0	0	1
	0	0	11

No. 2. Extra for 4-in. syphon-traps :—

	£	s.	d.
Add extra cost of 4-in. syphon (2 ft. long) over 4-in. pipe	0	1	3
Add extra labour, say	0	0	3
	0	1	6
Add 10 per cent. profit, say	0	0	2
	0	1	8

No. 2. Ends of rainwater-pipe made good to drain in tiles and cement :—

The end of the rainwater-pipe is usually inserted into a bend and flanged round with cement, or into a brick cesspit and made good, as described. The cost of labour for this is about 9*d.*, and, say, 3*d.* for cement and profit. This is presuming the bend is taken, or sufficient rainwater-pipe to pay for it.

No. 6. Doulton's 11½-in. square gully-traps, with iron grating, list price 6*s.*; and add carriage and fixing and making good to drain :—

In pricing this item, the trade discount must be taken off the last price given. This discount is 15 per cent., delivered within a certain radius.

	£	s.	d.
Cost of gully 6*s.*, less 15 per cent.	0	5	2
Cost of setting in brickwork, say	0	2	6
Cost of connecting to drain is little if pipes are all taken, say	0	1	0
	0	8	8
Add 10 per cent. profit	0	0	10½
	0	9	6½

No. 1. Redcliffe small-size trap; list price 6*s.* 6*d.*, and add carriage and fixing and making good to drain :—

There is little variation in this item from the last. The extra cost is covered by its being smaller to set. 6*d.* should be added for carriage, as they would not deliver one, and *the distance is six miles.*

No. 2. Brick curbs, two courses high, built and rendered in cement round three sides of 12-in. square trap:—

This contains 1 ft. 10½ in. super. of half-brick in cement, and, being so small a quantity, is worth twice the value given in "Bricklayer" for half-brick wall in cement.

	£	s.	d.
Say 2 ft. super. at 1*s*...	0	2	0
Add rendering in cement (5 ft. 4 in. super.) ..	0	1	4
This price includes profit	0	3	4

No. 1. Make connection with sewer with proper junction and 6-in. galvanised-iron flap-trap, and pay fees:—

This is an item which will vary in almost every parish, as the fees are the main part of the cost. The drain is usually taken up to the sewer, so that there is only connecting the drain-pipe to the flap-trap—say 1*s*. The Vestry generally cut the eye in sewer and fix the flap-trap; they mostly insert the drain-pipes from your outer wall to the sewer, i. e. the 6-in. pipe taken 13 ft. deep average, and the cost will mostly exceed what you can do it for yourself, as they generally have contractors to do the work—their profit, of course, being added.

The charge for 6-in. trap and fixing is 13*s*. to 15*s*.; to this add 20*s*. for making good road and profit. In this parish the contractor was allowed to lay his own pipes at the date the work was carried out; now the parish lays them, and charges.

BILL No. 3.

BRICKLAYER.

The bricks to be hard-burnt stocks; the mortar to be composed of one-third of stone-lime and two-thirds of sand; the cement to be Portland.

30 rods. 76 ft. super. Reduced brickwork in mortar:—

For an ordinary dwelling-house, I consider that four thousand of bricks are sufficient for a rod of reduced brickwork, as there are flues, stone, and timber not deducted. For garden walls, retaining walls, &c., four or five hundred more would be required. Most books of reference give more than four thousand. It will be best to check the number used on any one work. This also, of course, is varied with the size of the bricks used and how the quantities are taken out. I have, in each case, assumed the work to rise four courses to the foot, which is the very best gauge that can be used.

The price of stocks delivered *on site* in Hampstead is 37*s*. 6*d*. (To obtain the cost of stocks delivered in London, first get the price of them alongside in the Thames, say 30*s*., add unloading, carting, and stacking within a mile, 4*s*. 6*d*., and 2*s*. for each mile beyond; these prices will be increased a little for City work, because of the traffic.)

	£	s.	d.
4000 stocks at 35*s*.	7	0	0
Cost of labour (this includes rough arches, but not cutting)	3	0	0
1½ yds. of grey stone lime at 12*s*.	0	18	0
3 yards of sand *P.C.* at 7*s*. 6*d*...	1	2	6
	12	0	6
Ten per cent. profit	1	4	0½
	13	4	6½

It will scarcely take 4½ yds. of mortar to a rod. The 10 per cent. profit given is very bare, as there are the *working expenses*, &c., to be provided for of 2½ to 5 per cent. Experience will, however, soon show an estimator how much he is able to get as a profit out of competition. He can price a little higher until he has confidence in these prices. His position in a list of tenders will soon show him what others ask. The price of 3*l*. for labour is *low*.

87 ft. super. extra value only in cement to reduced brickwork:—

	£	s.	d.
Cost of 27 bushels of cement at 1*s*. 9*d*.	2	7	3
Less cost of 1½ yds. lime	0	18	0
	1	9	3
Extra labour, say	0	10	0
	1	19	3
Ten per cent., say	0	4	0
	2	3	3

The quantity of lime and cement set down for this mortar by specification is excessive.

I have reckoned a bushel of cement, struck measure, in place of a bushel of lime, heaped measure. This is barely an equivalent.

171 ft. super. Half-brick walls in cement:—

	£	s.	d.
To the price of brickwork	13	4	6
Add in cement extra	2	3	3
Including profit	15	7	9

This is equal to about 1*s.* 1½*d.* per foot super., reduced, or 4½*d.* per foot super. of half-brick, and it is worth ½*d.* per foot super. extra labour to *half-brick* wall.

94 ft. super. Half-brick trimmer arches in cement and levelling in concrete :—

To the last item add ½*d.* per foot super. for extra labour to circular work in arch, and 1*d.* for filling in the haunches level to take stone hearth, making 6½*d.* in all. These additions include profit.

86 ft. super. Rough cutting and waste :—

This is variously estimated for at from 1*d.* to 3*d.* per foot. I have closely watched the cost of it and many similar items of labour; the cost is about 1½*d.*, so that 2*d.* carries a good profit. The words "and waste" are unusual to find, although, of course, there is waste; and if there were a very large amount of cutting, it would reach a value worth noting. Waste is a thing taken into consideration in the number of bricks given for a rod of brickwork.

120 yds. super. Joints of brickwork struck fair :—

The cost of this is 3*s.* 6*d.* to 4*s.* per 100 ft. super., say 4½*d.* per yard.

12 yds. super. Twice lime-whiting :—

This may be let in large quantities at 1*d.* to 1½*d.* per *yard; but, as the* quantity is small, say 2*d.* with profit.

4 ft. super. Brick flat-paving in sand:—

It is usual to bring this item into yards super. in billing; but as this is a very small quantity, it has been left in feet. Unless specified to the contrary, it is usual to assume that common stocks are to be used, 100 stocks at 3*s.* 6*d.*, laid flat, cover about 3 yds. super.

	£	*s.*	*d.*
Cost of bricks per yard super.	0	1	2
Cost of labour	0	0	9
Sand, say	0	0	3
	0	2	2
Profit, say	0	0	3
	0	2	5

12 yds. super. Portland cement floated surface, for tile-hearths and paving:—

This is a thin bed of cement floated *level* on top of concrete for hearths, and on other concrete taken for pavings. A bushel of cement, *P.C.* 1*s.* 9*d.*, and two bushels of sand, *P.C.* 10*d.*, will cover about 9 yds., and the labour is worth from 4*d.* to 6*d.* per yard, quantity governing the cost.

	£	*s.*	*d.*
1 bushel of cement	0	1	9
2 bushels of sand at 7*s.* 6*d.* per yard	0	0	10
9)	0	2	7
Say	0	0	3½
Labour	0	0	6
	0	0	9½
Ten per cent. profit	0	0	1
	0	0	10½

39 yds. Portland cement paving, ¾ in. thick, laid in best manner, and trowelled smooth:—

This is a thicker bed (the last would require about ½ in. thick), the cement and sand being worth 9*d.*, as, to do good work, the face should be finished with *dry* cement and then trowelled hard, the labour costing about 1*s.*

	£	s.	d.
Cost of cement, &c.	0	0	9
Cost of labour	0	1	0
	0	1	9
Ten per cent. profit	0	0	2
	0	1	11

9 yds. super. Tile-paving *P.C.* 10*s.* per yard, including laying :—

To the above price add 1*s.* for profit and 3*d.* for cement. In many cases the price for tiling is given exclusive of carriage and laying, the price quoted being "at the works." The cost of laying varies with the pattern; 6-in. tiles can be laid at 1*s.* 6*d.* per yard, and the small geometrical tiles at 3*s.* 6*d.* per yard, ordinary patterns. Carriage, of course, varies with the manufactory they are chosen to come from.

2 yds. super. Paving of 6-in. red Staffordshire tiles and laying on and including a cement floated surface :—

There are many qualities of these tiles, varying in cost at London depot from 6*s.* to 10*s.* per 100. Unless it be specified to the contrary, it is assumed that those of fair ordinary quality are to be used.

	£	s.	d.
36 tiles at, say, 7*s.* per 100, delivered	0	2	6
Cost of laying	0	1	6
Cement bed as before	0	0	9½
Cement for jointing, &c., say	0	0	3
	0	5	0½
Ten per cent. profit, say	0	0	6
	0	5	6½

As this is so small a quantity, a higher price must be charged, for these few tiles may have to be fetched by themselves, and 5 per cent. should be added for breakage. I should price them at 7*s.*

These prices given are for what are called tiles by some, but they are known in the trade as Quarries; tiles 6 in. by *6 in. by ½ in.*, best finish, will cost 7*s.* 6*d.* a yard delivered.

377 ft. super. Damp-proof course of mineral asphalte, ½ in. thick:—

The cost of this is *2s. per yard* super. in large quantities, *2s. 3d.* in small ones, i. e. *3d.* per foot. Add *½d.* for profit.

20 ft. run rough-cut bird's-mouth:—

This is of the same value as a super. foot of rough cutting.

177 ft. run rough-cut chamfer:—

This is worth about half the last item; it, of course, depends on its width, which is not here given. I presume it to be narrow, or it would be added into the rough-cutting *super.*

47 ft. run 5-in. skewback cutting:—

This is of twice the value of rough-cutting per foot super., as it has to be cut fair on the outer face, which shows. This would give *4d.* per foot super. The skewback is 4½ in., though measured as 5 in.; this gives, say, *1½d.* per foot run.

21 ft. run rough-cut splay, 5 in. wide:—

This is only rough-cutting as taken in the super., which varies from the roughest over relieving arches to that cut to two lines, such as ramps, &c.; price at 5 in., at *2d.* per foot super., say *1d.*

30 ft. run chase-cut or formed for pipe:—

It is not usual to price this, as it is generally left as the work is carried up. When they have really to be cut into wall, the kind of brick has to be taken into consideration: an ordinary stock being used, a 4½ in. chase, 4½ in. deep, is worth, including profit, *4d.*, and a 9 in. by 4½ in., *6d.* per foot run.

14 ft. run. Cut and pin slate shelf:—

This is cutting a chase ready for the slate-mason, and making it good again, after him. The slate-mason should pin up the shelf; *3d.* will cover profit, as the chase is narrow and runs with the beds of the bricks.

8 ft. run. Cut and pin landing :—

The size, i. e. thickness, of this is not given; but turning to the "Mason," I find there only a 3-in. York landing. The mason should pin it as part of his fixing, so there is only cut chase and point, the 3 in. just filling one course cut out, Price at 3*d.*, including profit. 1*d.* should be added for every inch of increased thickness of landing, those that come in courses 3 in. and 6 in. being, of course, the easiest to do.

105 ft. run. Rake out and point flashings :—

This is simply raking out the mortar-joint 1 in. deep, and, after the plumber has wedged the edge of the flashing in the chase, filling in the joint and pointing it, 1½*d.* will cover profit.

62 ft. run. Rake out and point step-flashings :—

This is the same labour performed to raking flashings, to gable parapets, &c., the slope of the roof requiring the flashings to be vandyked out to go round the edge and end of brick, and is worth about 50 per cent. more, say 2½*d.*

33 ft. run. Brick in cement riser :—

The size of this is not given. It may be assumed to be one brick laid flat in cement, say 9 in. to 13½ in. wide, to carry a 3-in. York step or threshold on top, to enter door, although the word "riser" should only mean the outer casing, i. e. 4½ in. wide; and this is, therefore, all I should provide. 3 in. super. of half-brick wall, 1½*d.* and ½*d.* extra labour, small quantities, making 2*d.* It may be intended as a riser to a continuous flight of flyers formed of 2½-in. or 3-in. York treads on these risers. This latter I think the most likely, and, if correct, then the *bed* requires pointing one or both sides, and another ½*d.* should be provided. The description is not very explicit; but, as the item is not a heavy one, it would not materially affect the total of the estimate.

No. 35. Ends of timber cut and pinned:—

Very few require the wall cut away for them. They are generally built in and the ends pinned up, or rather made good to after, i. e. the space left round the timber filled in with brick or tile set in cement. No practical man would take these as cut, in measuring or taking off, except to old work; they are worth 4*d.* each, including profit; 9*d.* in old work.

No. 38. Ends of steps cut and pinned:—

These are usually cut away for after the brickwork is up. In some cases courses are left where they are to be fixed, built in sand only. The bricks are then afterwards drawn out, the end of the step inserted and pinned up, and made good, &c. It requires great accuracy to set out where the courses are required, and more trouble than many foremen care to take, hence they are mostly cut after. These are worth 1*s.* each, including profit. That is for cutting away brickwork and making good after. The pinning up step in its place is the mason's work.

No. 32. Ends of iron bars cut and pinned:—

These must be cut away for, and made good to, after brickwork is up. The pinning is the smith's work fixing; they are worth 4*d.* each, including profit.

No. 26. Sills made good to and pointed, including cutting and pinning the ends:—

There is generally one course of bricks left out under the sill-line, two courses in all, and, at the ends below angle of brick reveal three courses. After the sill is set in its place by the mason, the bricklayer fills in the course under and the bricks over and under at ends. I give these explanations of the work required that the reader who is not practical may the better understand the work that has to be done. I value this at 2*s.* in the following manner :—

	£	s.	d.
One hour of a bricklayer and labourer	0	1	3
Materials, 6 or 8 bricks, and cement	0	0	7
	0	1	10
Ten per cent. profit	0	0	2¼
	0	2	0¼

This price is a heavy one, and objected to by many; but this includes two items often taken separately; two ends cut and pinned at 6*d.* each, and one sill made good to at 1*s.*

No. 29. Frames bedded and pointed :—

A screed, or thin bed of lime and hair, is run in the inner reveal on the face running parallel with the face of wall, to bed the frame against, and the edge of this is pointed down after the frame is fixed. In pointing, 5 in. is generally given for 4½-in. reveals to allow for this, so there is only the bedding to allow here.

	£	s.	d.
Plasterer and labourer half an hour	0	0	7½
Lime and hair	0	0	2
Fixing set of rough deal screeds, including use and waste, say	0	0	4
	0	1	1½
Add profit	0	0	1½
	0	1	3

No. 7. Large ditto :—

The increased cost of these over the ordinary sizes taken in last item has to be guessed at. They are usually priced at 50 per cent. over ordinary, say, 1*s.* 9*d.* or 1*s.* 10*d.* There does not seem to be enough frames taken "bed and point." I find many more taken to be painted in the "Painter." Every check should be kept by an estimator on the quantities, that he may know how they are taken, and, if the work is obtained, it is very essential to check them in *every way possible* as the work progresses.

No. 16. Flues cored and pargeted :—

This is a thin coat of lime and hair and cow-dung, with which the bricklayer lines the flue as he brinks the work up; there is a large variation in the value set on this by different estimators; in settling extras and omissions, I have been offered 1*s.* and 1*s.* 6*d.* each for these in a building 50 ft. to 60 ft. high, and parging, say, 55 ft. by 3 ft. 10 in. = 23½ yds. super., and then pay the sweep 4*d.* to 6*d.* to core a flue of this length. The lowest value I consider is 2*s.* 6*d.*; including a profit, they are worth 3*s.* each.

No. 8. Perforations through 1½-in. brick-wall and making good :—

These are for the soil, waste, and drain-pipes, &c., to be carried through, and take less than an hour of a mechanic and labourer, say, with profit and material, 1*s.* 6*d.* each.

No. 35. Cutting and waste to relieving arches, average 3 ft. long, and one brick by one brick :—

It is not usual to price these, as they are considered to be included in the sum provided for plain labour in Item 1 in this bill; they are worth 1*s.* each, average size.

No. 19. Cutting and waste to segmental arches, average 3 ft. 4 in. long, one brick deep, and three-quarters wide :—

The last remark applies to this also.

No. 14. Labour and materials setting registered stoves, including the necessary firebricks, &c. :—

A bricklayer and labourer *can* set a common register stove in two to three hours, and the materials are worth 1*s.* 6*d.* Firebricks to backs of register stoves are nearly always found with and secured to them; but in some few "Early English" and other stoves they are provided with them, but have to be set in fireclay by the bricklayer, and often these kinds of *stoves have fireclay sides*, which are sent, like the backs, loose. These stoves take about six hours each of bricklayer and labourer. The filling-in behind would be of common stocks and mortar or cement, and cost, say, 2*s.* Some of the stoves with tile sides are sent with the tiles loose, to be fixed in by bricklayer, and then have to be allowed for.

No. 4. Ditto stove and mantel in one piece :—

These require about one hour's more labour of bricklayer and labourer, and half-an-hour plasterer making good round them (this ought to be taken with plasterer's bill, but is not), and a very small sum, 3*d.*, for plasterer's material—say, 8*s.* in all.

No. 12. 9 in. by 6 in. air-bricks and building-in :—

These, in cast iron, cost 4*d.* to 6*d.* each, and require pointing round if flush, or the reveals rendered if the air-brick is set back. The inside of opening is also generally rendered. Labour and material, setting, say, 10*d.*, and add profit—say, 1*s.* 6*d.* in all.

No. 16. Terra-cotta chimney-pots, 2 ft. high, of approved design and setting, and flaunching in cement :—

This is another speculative item, through the price not being given. A 2 ft. chimney-pot may be bought as low as 1*s.* 3*d.*, delivered in fair quantities, up to at least four times the amount ; but the presumption is that a fair, ordinary one will do.

	£	*s.*	*d.*
Say cost of chimney-pot	0	2	6
Fixing	0	1	0
Cement, say	0	0	4
	0	3	10
Ten per cent. profit, say	0	0	5
	0	4	3

FACINGS.

4803 ft. super. Extra on common brickwork for facings of hard red bricks of good, even colour, equal to sample, to be seen in architect's office; the joints raked out, and pointed in blue-ash mortar, with a neat rule joint:—

These should, of course, be inspected. Good Reading red facings cost about 60*s.* per 1000, delivered on site; 100 bricks will do 14 ft. to 15 ft. super. of facings.

	£	*s.*	*d.*
Cost of red facings	3	0	0
Deduct cost of stocks	1	15	0
	1	5	0

This gives 2*s.* 6*d.* per hundred, and about 2¼*d.* per foot.

	£	*s.*	*d.*
Cost of facings	0	0	2¼
Cost of pointing and material..	0	0	1¼
Raking out is included in price of brickwork.			
	0	0	3½
Profit, say	0	0	0½
	0	0	4

65 ft. super. Extra on common brickwork for facing with Beart's No, 1 perforated white bricks, and the joints raked out, and pointed with a neat rule joint:—

The cost of Beart's No. 1 perforated is about 5*s.* less than that given for red facings—*i. e.*, ½*d.* a foot less, and the pointing ½*d.* a foot less.

	£	*s.*	*d.*
Cost of bricks	0	0	1¾
Cost of pointing, &c.	0	0	0¾
	0	0	2½
Ten per cent. profit	0	0	0¼
	0	0	2¾

As the quantity is small, say 3*d*.

151 ft. super. Extra on common brickwork for rubbed and gauged arches in best red bricks and pointing :—

I should say these were not deducted from the red facings. They seldom are, and therefore are extra only over the cost of the facings; but to be on the safe side, provide the cost as described over the brickwork. The cost of red rubbers is 100*s.* per 1000—*i. e.*, 65*s.* beyond the common bricks. It takes about 10 bricks to a foot super. of rubbed arch.

	£	*s.*	*d.*
Cost of *ten* rubbers .. .. at 100*s.*	0	1	0
Deduct cost of *seven* stocks, say	0	0	3½
	0	0	8½
Cost of cutting, rubbing, and setting	0	1	0
	0	1	8½
Add 10 per cent. profit	0	0	2
	0	1	10½

65 ft. run. Oversail one course of facings :—

There is the material in the projection to provide for, say ¼*d.*, and labour, say ¾*d.*, including profit.

47 ft. run. Circular and skewback cutting to facings :—

Both of these have to be cut fair and neat, and are worth 50 per cent. more than the other skewback taken earlier in the bill—say 2*d.* per foot, including profit.

70 ft. run. Cutting facings to form reveal 6 in. wide :—

This is cutting 3 in. off the 9 in. brick of alternate courses, and putting a 1½ in. closer to the others, as the part of revel against the outside of frame is pointed. This does not require so neatly doing as the cuttings round face arches *that are generally* set in a close joint—say 1*d.* for it.

284 ft. run. Extra on common brickwork for moulded course in white bricks, and setting out and pointing:—

The cost of moulded bricks is 27*s.* to 32*s.* per 1000 over facings, and 55*s.* over common stocks—say, two bricks per foot (it is a little less) if header and stretcher are used alternatively:—

		£	*s.*	*d.*
Cost of bricks, say	at 55*s.*	0	0	1¼
Labour and cement		0	0	0¾
		0	0	2
Ten per cent. profit, say		0	0	0¼
		0	0	2¼

No. 44. Mitres:—

These are to be bought ready formed—i. e., the moulding returned on the end of the brick, *P.C.*, about 1½*d.* extra on the headers and stretchers. Allow 1*d.* extra for setting and profit, making 2½*d.*

No. 6. Extra on common brickwork for cut and rubbed weatherings, 2 ft. wide and 2 ft. girth, in red bricks:—

Take the measurement of these at 4 ft. super. and price at 6*d.* per foot super. extra, over the price given for arches, for extra cost of labour, including profit; these, in measuring, should be girted *both* ways, and on all parts showing that are rubbed.

BILL No. 4.

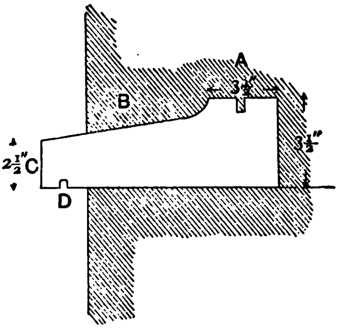
MASON.

The stone to be of the best quality of its several kinds, free from all defects, and cleaned down at the completion.

PORTLAND STONE.

26 ft. run, 11 in. by 3½ in. sunk, weathered and throated sill, grooved for iron tongue.

It is the practice with many London estimators, especially when the mason's bill is not a large one, to price the work at *per foot cube, including* all labours, experience teaching them a fair value at a glance at the labours taken; if they intend to go very closely in for it, they price the stone and labour in detail, where it is taken out in that form. Where there is a large mason's bill this is done. There is too little here to cube, hence it is taken run by the surveyor. As sills, heads, &c., vary so much in size, the only way to carry their value in memory is to know their average value per foot cube; in this sill there is very little stone, and a good deal of labour on so small a quantity. I value it at 10*s.* per foot cube, or 2*s.* 9*d.* per foot run, and give a presumed sketch of the sill—



and a detail of the labours priced *very* low and yet exceeding the above sum, which is really a *very* high one for average cube stone, even in ordinary dwellings:—

	£	s.	d.
3¼ in. cube of stone *P.C.* delivered 1*s.* 10*d.* ..	0	0	6
Ten per cent. waste	0	0	0⅝
Hoisting and setting .. .. at 1*s.*	0	0	3¼
2 ft. 5 in. half-sawing three faces, at 3½*d.* per foot super	0	0	8½
8 in. sunk face B rubbed .. .. .. at 1*s.*	0	0	8
8 in. rubbed work A.C.D., 4*d.* (extra only over *half* sawing)	0	0	3
2 ft. groove and throat .. .. ¾*d.*	0	0	1½
	0	2	7
Ten per cent., say	0	0	3¼
	0	2	10¼

I have not taken any labour to bed or joint, considering the half-sawing sufficient. The half-sawing to ends is allowed in a labour of "fair ends," &c. taken after.

6 ft. 6 in. run, 11 in. by 3½ in. sill, as last, but in one length:—

This is worth about 3d. per foot run more, because it exceeds 6 ft. in one length, and large stones cost more, unless a lot of *very small* is taken to balance the excess, and make an average of 20 ft. cube to the stone. There is also the risk of breaking long stones of small scantlings, in working, setting, and by settlement of the brickwork after.

24 ft. 11 in. by 3½ in. sill, as before, but 7 ft. and 8 ft. lengths:—

Price this as last.

No. 22. Fair ends, including stopped ends to weathering:—

This is the end that projects from the brickwork, rubbed after sawing, or squared and rubbed if the sill is cut to length, by coping it, and forming hollow-stop to weathering. A mason will do the fair end and stop in an hour—say 1*s.* each, including profit, but 10*s.* per foot cube is enough to cover this.

26 ft. run. 18 in. by 4 in., sunk, weathered, and throated sill, grooved for iron tongue:—

This being a much larger sill, and the stone more evenly proportioned to the labour, is worth 1*s.* 6*d.* per foot cube less—i. e. 8*s.* 6*d.* per foot cube.

No. 6. Fair ends:—

Say, half the price given for fair ends and stops—i. e. 6*d.* each.

No. 6. Jointed-ends:—

This labour is worth a little more than the last, if really jointed.

No. 16. Stoppings to weatherings, 6 in. wide:—

Here we have the other half of the labour to "Fair ends," &c.—i. e. 6d. each.

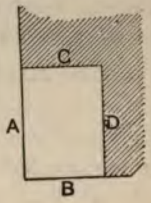
35 ft. run. 6 in. by 4 in. mullions:—

This is worth 1*s.* per foot run, presuming it to be a plain square stone, jointed, and rubbed on three sides; if rebated add 4*d.* to 6*d.* according to size of rebate.

29 ft. run. 12 in. by 6 in. head:—

This is worth 6*s.* per foot cube if plain, if rebated add 2*d.* to 3*d.*

Hereunder I give the detailed labour in this head as I presume it to be, if not rebated.



	£	*s.*	*d.*
6 in. cube stone, waste, and setting 2*s.* 10*d.* ..	0	1	5
3 ft. super. half-sawing A.C.B.D., at 3½*d.* ..	0	0	10½
1 ft. 6 in. super. plain face A.B. rubbed (extra over half-sawing .. .. at 4*d.*	0	0	6
	0	2	9½
Ten per cent. profit	0	0	3½
	0	3	1

Some of the outside stones would work in against the brickwork, and so save half-sawing. This will cover the cost of sawing or squaring ends.

No. 6. Cement joggle joint:—

The jointed ends of stone are rough-grooved or chased two-thirds of their length for the cement to form a key in; half-an-hour of a mason is required to each, but the price if reckoned at per foot cube of stone would include these.

No. 4 Fair ends:—

This, I should think, must be some error (I am taking the quantities as they are lithographed); there could scarcely be a fair end to a head; half joint, if anything, should, I *think, be taken to* ends against brickwork. This, if intended, is worth *6d.*; and will cover the half-sawing on it I did not allow for in the detail.

No. 2. 9 in. by 6 in. by 6 in. moulded corbels:—

These cannot be priced at per foot cube; the value is labour only as one cubes to 2¼ in.; no description or sketch is given; the value is, therefore, of course speculative. It is presumed that the moulding is of a very plain character, since it needs no description. A bull-nose corbel can be worked and fixed in three hours, or a plain moulded or profile only, four to five hours; if mouldings are mitred and returned on both sides, say eight hours.

No. 12. Slate dowels, mortises, and cement:—

The mortises are worth 3*d.* each, 2 in. deep—i. e. 6*d.* for the two required, including profit, and a slate dowel 1 in. by 1 in. by 4 in., 2*d.*; 1 in. by 1 in. by 6 in., 3*d.*; cement, 1*d.*

YORK STONE.

84 ft. super. 2-in. rubbed hearths and jointed edges:—

Front hearths are mostly cut from sawn stone because of the length, and slightly rubbed after; where the builder has a rubbing bed, this is an inexpensive labour; they can, of course, be cut from rubbed landings.

The cost of 2-in. sawn York delivered is 9½*d.*, unless bought in large quantities direct from quarry, to which add 10 per cent. for waste, 3*d.* per foot coping to size, rough tooling the edges, setting, and slightly rubbing:—

	£	*s.*	*d.*
Cost of 2-in. sawn stone	0	0	9½
Ten per cent. waste	0	0	1
Labour	0	0	3
	0	1	1½
Ten per cent. profit, say	0	0	1½
	0	1	3

17 ft. super., 2½-in. do.

Add 1*d.* for extra cost of stone. The constant practice of pricing these items will fix them in the mind, and no reference to cost will be required then.

11 ft. super., 2½ in. self-faced lintel and coal-shoot:—

This can be cut from the ordinary 2½ in. self-faced York paving, price 6½*d.* per foot delivered; it requires to be coped to size, the edges and ends tooled, and setting.

	£	*s.*	*d.*
Cost of 2½ self-faced paving	0	0	6½
Ten per cent waste, say	0	0	0⅝
Coping, tooling, and setting	0	0	3
	0	0	10¼
Ten per cent. profit, say	0	0	1
	0	0	11¼

9 ft. super. 3 in. self-faced landing:—

This is a very small landing, and may possibly, when the sizes are found, be selected from ordinary paving. The price of 3 in. self-faced landings delivered, is 1*s.* 0½*d.* per foot super.

	£	*s.*	*d.*
Cost of stone	0	1	0½
Ten per cent. waste	0	0	1¼
Coping to size, and rough tooling edges, and fixing	0	0	4
	0	1	5¾
Ten per cent. profit	0	0	1¾
	0	1	7½

Some surveyors take the tooled edges separately, then 2*d.* is enough for coping and laying.

8 ft. run. Groove for tongue:—

This is a groove a full half-inch deep on the upper side of sill, and ¼ in. to ⅜ in. wide. I gave the prime cost for groove or throat at ¾*d.* The throat is not needed so deep, and is, therefore, not worth so much. I consider this a very low price, and have known working masons ask more to do it. Separating the two, I should put throat at 1*d.*, including profit, in small quantities, ¾*d.* in large; groove, 1½*d.* in small, *1d. in large.*

5 ft. run. Sunk edge to 3 in.:—

This is 3 in. super. sunk work, as given in a former detail for Portland stone. If this is out of sawn York, used generally green from quarry, it is worth about same value; but, as it is rough, 1*s.* per foot super, including profit, is enough. This is 3*d.* for 3 in. wide per foot run.

19 ft. run. 11 by 3 sawn sill, throated, grooved for iron tongue, and set slightly sloping:—

	£	*s.*	*d.*
11 in. of 3-in. sawn York costs, at 1*s.* 1½*d.* per foot super.	0	1	0½
Ten per cent. waste, say	0	0	1½
Sawing to width, grooving, throating, and setting	0	0	6
	0	1	8
Ten per cent. profit	0	0	2
	0	1	10

No. 14. Fair ends:—

This is squaring the projecting end, as taken to Portland sills. These are small, and a mason could do four an hour, say, with profit, 4*d.*

8 ft. run. 9 in. by 3 in. tooled curb:—

This can be coped from 3 in. tooled paving, and the two edges tooled.

	£	*s.*	*d.*
Cost of 9 in. of 3-in. tooled paving	0	0	7
Ten per cent. waste, say	0	0	0¾
Coping to size and fair tooling edges	0	0	6
Jointing and setting	0	0	3
Mortar, say	0	0	0½
	0	1	5¼
Ten per cent. profit	0	0	1¾
	0	1	7

D

No. 2. Fair ends :—

Say 6*d.*, including profit, for these. There is a larger surface in sight than in the last.

41 ft. run. 12 in. by 2½ in. tooled treads :—

These are coped from 2½ landings (unless very short, and then out of paving). *P.C.* 11*d.* per foot super., delivered.

	£	*s.*	*d.*
Cost of 2½-in. landing	0	0	11
Ten per cent. waste, say	0	0	1
Coping to size and tooling one edge	0	0	3
Setting	0	0	3
	0	1	6
Ten per cent. profit	0	0	1¾
	0	1	7¾

Unless specified to the contrary, I should presume one edge only tooled; the ends of the steps are taken cut into the wall in the "Bricklayer," and made good to after, and the fair ends follow farther on in this bill. The brick riser taken in "Bricklayer" is probably for these steps. But where the risers are stone, and taken in with the treads in a superficial dimension, a much higher price must be put, as the risers are difficult to cope, being so narrow, 4 in. to 5 in. in width only.

9 ft. run. 9 in. by 3 in. rubbed step, back-jointed :—

This can be cut either from 3-in. rubbed or 3-in. sawn stone; 3-in. sawn York is 1*s.* 1½*d.* per foot super., delivered as given before.

	£	*s.*	*d.*
9 in. of 3-in. sawn stone .. .. at 1*s.* 1½*d.*	0	0	10¼
Ten per cent. waste	0	0	1
6 in. half-sawing, say, to edges	0	0	2
1 ft. of rubbing (slight) to face and edge ..	0	0	1½
Setting, including mortar	0	0	3
	0	1	5¾
Ten per cent. profit	0	0	1¾
	0	1	7½

The back-joint to one edge is formed by half-sawing taken above without further labour. I have here given sawn stone to be used, as I consider it the best. When sawn to size, there is scarcely any labour required of the mason, except setting.

7 ft. 6 in. run. 12 in. by 3 in. rubbed step, back-jointed (7 ft. 6 in. lengths) :—

This, if cut from the same kind of stone, may be done at the same price. Sawn landings may be had 8 ft. long at same price, and, at times, even up to 10 ft. in stock.

	£	s.	d.
1 ft. run, as last	0	1	7½
Add one-third additional width	0	0	6½
Including profit..	0	2	2

If there were a larger quantity of this, I would price the labour 1*d.* less, as there is comparatively less sawing and rubbing to it.

5 ft. run. 14 in. by 3 in. rubbed step :—

Add additional width at the same rate as last—i. e., price at one-sixth more than last item of 1*s.* 7½*d.* and 6½*d.*

7 ft. 9 in. run. 14 in. by 3 in. rubbed step in one length :—

In this item add 2*d.* for risk of breakage.

	£	s.	d.
1 ft. of 12-in. by 3-in.	0	2	2
Add one-sixth, to make 14-in. width	0	0	4½
	0	2	6½

4 ft. run. 14 in. by 3 in. ditto, back-jointed :—

This is a stone that might be got out of an exceptionally large piece of rubbed paving ; but it is only safe to provide, as before, for landing, and price the same as 5 ft. of 14-in. by *3-in. rubbed step.*

12 ft. run. 9-in. by 6-in. ditto, back-jointed :—

This can be cut from a 6-in. sawn landing, the cost of which is 2*s.* 5*d.* per foot super., delivered.

		£	*s.*	*d.*
Cost of 9 in. of sawn stone	at 2*s.* 5*d.*	0	1	9¾
Ten per cent. waste		0	0	2¼
1 ft. of half-sawing to edges		0	0	4
1 ft. 3 in. slight rubbing	at 1½*d.*	0	0	2
Setting		0	0	3
		0	2	9
Ten per cent profit		0	0	3½
		0	3	0½

6 ft. 6 in. run. 14 in. by 6 in. rubbed step, in 6 ft. 6 in. lengths :—

The last item cubes to 8*s.* per foot cube. Price this at the same rate, 7 in. cube, at 8*s.*, = 4*s.* 8*d.* All these items are small and can be priced lower in large quantities.

No. 4. Jointed ends to steps :—

Allow an hour's work of a mason for each of these, *P.C.* 9*d.* They *can* be done in less time.

No. 3. Fair rubbed ends to steps :—

Add 3*d.* to the last price for rubbing.

No. 6. Fair tooled ends to 2½ in. treads :—

About half-an-hour of a mason, say 6*d.* each, including profit.

No. 22. Notching hearths for chimney-pieces :—

These take about half-an-hour each; but, in fixing chimney-pieces, the mason has a labourer to assist him. A mason fixing has 9¾*d.* per hour, labourer 6*d.*; this comes to 8*d.* *P.C.*, say 9*d.* with profit. Some labourers, such as are able to rub and are accustomed to masons, get 6½*d.*

No. 12. 9 in. by 6 in. by 3 in. self-faced templates :—

The cost of the stone for this is 3*d.*; the labour, coping, and squaring them to size is about three-quarters of an hour at 9*d.* No allowance need be made for waste, as they are cut from odd pieces useless except for such purposes. These are mostly set by the bricklayer; but sometimes he objects, and the mason is called up. The time given will cover the setting.

No. 4. 14 in. by 9 in. by 3 in. tooled templates:—

	£	s.	d.
Cost of 10½ in. super. of 3-in. tooled paving at .. .. *9d.*	0	0	8
Add 10 per cent. for waste	0	0	1
Labour, coping to size, tooling one edge and part of ends, and setting, say 1½ hours ..	0	1	1½
	0	1	10½
Ten per cent. profit	0	0	2¼
	0	2	0¾

No. 1. 3-in. tooled cover to coal-shoot, 2 ft. by 2 ft., with rebated perforation:—

	£	s.	d.
4 ft. super. 3-in. tooled paving, at *9d.*	0	3	0
Ten per cent. waste	0	0	3½
Coping to size and tooling edges	0	2	3
Cutting rebated hole	0	1	6
Setting	0	0	6
	0	7	6½
Ten per cent. profit	0	0	9
	0	8	3½

I have here assumed that the edges are carefully tooled, if only required to be roughly squared, as in paving (and I should consider that sufficient, though it is best to provide enough), the cost would be *9d.* less.

No. 1. 7-in. tooled and dished sink, 4 ft. by 2 ft. 3 in., with rounded corner and rebated perforation for trap, and cut and pinned to wall on one side:—

The cost of 7-in. tooled York sinks worked, is about (*I use the word "about"* frequently, because there is a variation in cost prices) 2*s.* 3*d.* to 2*s.* 6*d.* per foot super., delivered.

		£	*s.*	*d.*
Cost of sink, 9 ft., at say	2*s.* 6*d.*	1	2	6
Add rounded corner		0	1	0
Add rebated perforation		0	1	0
4 ft. run. Cutting and pinning 7 in. (see *ante*)		0	2	4
Setting, very little, say		0	1	0
		1	7	10
Ten per cent. profit on all but fourth item ..		0	2	7
		1	10	5

No. 14. Iron dowels and mortises :—

The value of the dowel, a piece of cast or wrought iron square bar, is, say, 3*d.*, the holes in stone and frame, 4*d.*, and add profit; say 8*d.* in all.

No. 4. Mortises and running with lead :—

These, for balusters or other ironwork, are cut about 1 in. deep, say four an hour, *P.C.* 2½*d.* each; add ½ lb. lead, 1½*d.*, and profit, say 1*d.* more, 5*d.* in all.

No. 1. Rubbed slip chimney-piece, with 7 by 1½ jambs, mantel and shelf, fixed with cramps, &c., complete, to opening 2 ft. wide :—

A chimney opening is generally 3 ft. high, so there is about 13 ft. run of 7 by 1½-in. stone in the chimney-piece, which can be priced as follows :—

		£	*s.*	*d.*
7 ft. 7 in. super. 1½ in. sawn stone, rubbed,	8*d.*	0	5	1
Ten per cent. waste		0	0	6
26 ft. run. 1½ in. edge cut and rubbed ..	1½*d.*	0	3	3
No. 4.—Fair ends (frieze and shelf)	3*d.*	0	1	0
2.—Half-joints (jamb)	3*d.*	0	0	6
2.—Rounded corners on 1½	2*d.*	0	0	4
Cramps and plaster		0	0	6
Fixing, 1½ hour, mason and labourer		0	2	0
		0	13	2
Ten per cent. profit		0	1	4
		0	14	6

If Bath stone could be used, they could be done for 3*s.* or 4*s.* less. These can be bought ready-made of masons who do little else save make these kind of things, and they will fix if you wish them to do so.

No. 1. Rubbed chimney-piece, with 9 in. by 2 in. jambs, and mantel, all chamfered to 4 ft. 6 in. opening, for kitchen fireplace, the mantel notched for bracket, and fixing, as last:—

This is cut in the same manner as the last, from sawn stone, and rubbed after.

		£	*s.*	*d.*
12 ft. super. 2-in. sawn York, rubbed	10*d.*	0	10	0
Ten per cent. waste		0	1	0
36 ft. 6 in. run. 2 in. edge, as last	2*d.*	0	6	1
15 ft. run. Chamfer	2*d.*	0	2	6
No. 2.—Mitres	3*d.*	0	0	6
2.—Fair ends	4*d.*	0	0	8
2.—Half-joints	4*d.*	0	0	8
1.—Notching		0	0	6
Cramps, &c.		0	0	6
Fixing		0	2	6
		1	4	11
Ten per cent. profit		0	2	6
		1	7	5

This must, of course, be in hard stone, as there is a good deal of wear and tear for it. I have taken the opening 5 ft. high.

No. 1. Polished Sicilian marble lavatory top, 2 ft. 9 in. by 1 ft. 6 in., with one rounded edge and small quadrant corner, and perforation for tap, and rounded perforation for basin, and including 6 in. by ¾ in. polished marble skirting on three sides, and fixing complete:—

The thickness of this is not given, but they are usually *of 1 in.*

		£	s.	d.
Cost of 4 ft. 1½ in. of 1-in. marble at 2*s*. 9*d*., fixed complete		0	11	4½
3 ft. (say) rounded edge	6*d*.	0	1	6
1 quadrant corner		0	1	0
1 hole for tap		0	0	4
1 moulded ditto for basin		0	3	6
5 ft. 9 in. run. 6 in. by ¾ in. skirting.	1*s*. 6*d*.	0	8	8
No. 2.—Joints (angles)	6*d*.	0	1	0
2.—Fair ends and rounded corners.	1*s*.	0	2	0
		1	9	4½
Ten per cent. profit		0	3	0
		1	12	4½

I should price this 1*l*. 12*s*. 6d., or 1*l*. 15*s*., as there is only one. Where there is only one thing of a kind, a little more should be added, to allow for cartage.

BILL No. 5.

SLATER AND SLATE MASON.

18 squares, 45 ft. super. Slating of 20 in. by 10 in. Whitland Abbey or other approved green slates, laid with a 2½ in. lap, and each slate secured with two zinc nails :—

The cost of green slates is 12*l*. per thousand "long tally," i.e., 1200, delivered on site. It takes about 150 slates to cover a square, and 2 lb. zinc nails. Some slaters allow more slates ; 150 allows for the "*cutting*" measured in.

		£	s.	d.
Cost of 150 slates, i. e. 1¼ hundred long tally, at	12*l*.	1	10	0
2 lb. nails, at	5*d*.	0	0	10
Labour		0	3	6
		1	14	4
Ten per cent. profit		0	3	5
		1	17	9

This could be let to a firm of slaters, and it would be cheaper to the builder. I give the above detail, as I think it may be useful to some. The ordinary 20 in. by 10 in. can be let at 26*s.* per square, slates and labour, the slates being much cheaper if best Portmadoc are used. Penrhyn or Bangor costs 2*s.* per square more, i. e. 28*s.*

15 squares, 30 feet super. Slating as before, but with 3-in. lap :—

Add 2*s.* for extra labour and lap of slate.

5 squares, 65 ft. super. Ditto, ditto, but in smaller graduated sizes, with 3-in. lap to eaves, slightly curved :—

If this curve is only slight, the labour to it will cost 1*s.* beyond the 3-in. lap, and 2*s.* more for cutting to graduated sizes, and 5 per cent. for waste.

	£	*s.*	*d.*
Slating 3-in. lap	1	19	9
Cutting to graduated sizes..	0	2	0
Five per cent. waste	0	2	0
Extra labour, fixing	0	1	0
	2	4	9

Including profit on last items, 2*l.* 5*s.* 3*d.*

34 ft. run. Close cut and mitred hip, bedded in oil cement :—

This is generally let like the above, and the charge is 4*d.* to 6*d.* per foot run. Consider the builder is going to do it, and put the cost at 4*d.*; add a halfpenny profit. All the prices, including cement, and exclusive of the 12 in. cutting, allowed to the hips, and measured in with the other slating.

55 ft. Extra course of slates, and cement fillet to verge :—

The cost of this is as follows :—

	£	*s.*	*d.*
10 in. of slating, as for double course of eaves, at 37*s.* 9*d.*	0	0	3¾
Cement and labour to fillet	0	0	1
	0	0	4¾
Profit on last item only	0	0	0¼
	0	0	5

No. 2. Make good slating to pipe passing through roof:—

For the cost, say, one hour of a slater and labourer, 1*s.* 3*d.*, and allow slates and nails *P.C.* 1*s.*, say, with profit, 3*s.*, as a little margin must be left where the exact amount of work is not specified.

Leave slating clean and perfect at completion of works:—

This is a speculative item, and the cost varies on every job; about 1*s.* a square in small works will be sufficient, decreasing as the work grows larger. 6*d.* a square is enough for this; as there are about 39 squares in it, say 20*s.* including profit.

23 ft. super. 1 in. sawn slate shelf and jointed edges:—

It is usual to let the slatemason's work, as it is a special one, and few builders keep slate-masons employed. It is very seldom a stonemason can work slate; many profess to, but they cannot bring it out at a fair cost; added to which, it requires machinery to do it economically—planing-machine, sanding-bed, circular saw, etc. These shelves can be fixed at a cost of 1*s.* 4*d.* to 1*s.* 6*d.*, including sawn edges; the quantity being small, say 1*s.* 6*d.*, and profit 2*d.* —1*s.* 8*d.* in all.

18 ft. run. 6 in. by ¾ in. rubbed slate skirting, fixed with screws, and plugged to wall:—

The cost of this is about 1*s.* per foot run, fixed complete. There is the rubbing to provide for, and holes and plugs, in this sum, say, with profit, 1*s.* 1½*d.*

No. 2. Rounded ends:—

The cost of these is 4*d.* each.

No. 1. 4 in. by 2 in. slate cantilever, 21 in. long, and cut and pin in brickwork:—

The cost of the slate cut to size and delivered is 1*s.* 9*d.* to 2*s.*, and the labour, cutting hole, pinning in, and making good, 9*d.*, say 3*s.*, including profit. If there were many of these, they could be done at a lower price.

BILL No. 6.

CARPENTER.

The timber to be sound Baltic fir, well seasoned, and free from all defects.

Baltic timber in a very indefinite term, as nearly all fir timber comes out of the Baltic—from Norway, Sweden, and Russia; the baulk timber from the latter is the dearest and best; there is less waste in it, the Swedish timber being more tapering. But the cut planks, deals, battens, &c., from the other side of the Baltic are, as a generality, better than the Russian. It is not necessary to attach a price to this item above, it is only the description of material.

186 ft. cube. Fir in plates, lintels, and wood bricks:—

The cost of fir timber varies very much; good middling Dantzic is 60*s.* to 80*s.* per load of 50 ft. cube in the docks, say 1*s.* 6d. per foot cube.

	£	*s.*	*d.*
One foot cube of timber	0	1	6
Cartage to Hampstead	0	0	2½
Sawing to sizes, say	0	0	3
Ten per cent. waste	0	0	2
Cross-cutting to lengths and fixing	0	0	3
	0	2	4½
Ten per cent. profit	0	0	3
	0	2	7½

If these can be cut from deals, &c., which can be had 2, 2½, 3, and 4 in. thick (and even 5 in. at times), and from 3 to 12 in. wide, a saving of 5*d.* per foot may be made, i. e., *2d. on cost of deals, 1d.* on waste, and 2*d.* on sawing.

52 ft. cube. Fir in ground joists :—

These can be cut from deals. They have to be nailed to sleeper plates, and are worth about 1*d.* per foot cube more for labour.

	£	*s.*	*d.*
Cost of deals, say	0	1	3
Five per cent. waste	0	0	0¾
Cartage	0	0	2½
Sawing	0	0	1½
Labour	0	0	4
	0	1	11¾
Ten per cent. profit	0	0	2½
	0	2	2¼

It must be remembered that cartage to Hampstead from docks is a heavy item; it has to go to the saw mill, and then is carted to the works.

23 ft. cube. Fir sawn, reversed, and bolted :—

This must be cut from baulk timber, and the cost depends on the width and depth required. The price given in item 1 of this Bill was for timber not exceeding 13 or 14 inches in width, which, after being slabbed, would only hold 12 or 13 in. at the utmost. If there were a large quantity it would be wise to see the sizes, because when there is a good market for timber, an inch or two wider will make a lot of difference in cost; and if extra length is required, width has to go with it.

	£	*s.*	*d.*
Cost of timber, say, 90*s.* per load	0	1	10
Cartage	0	0	2½
Sawing	0	0	3
Ten per cent. waste, say	0	0	2½
Cutting to length, putting together, hoisting	0	0	6
	0	3	0
Ten per cent. profit	0	0	3½
	0	3	3½

I have presumed that this girder is 14 in. to 16 in. deep. If it were only 11 in. to 12 in. it could be formed of planks, with the same saving in cost on sawing and waste as before, *and about 4d.* on the timber.

552 ft. cube. Fir framed-in floors :—

Joists and trimmers can mostly be cut from deals or planks. There is little doubt where they can be used they are stronger and less likely to sag or deflect, as they are dry and case-hardened. It is very unwise, in my opinion, to use baulk timber if it can be avoided, as it will take a long time to season, and it is very seldom it gets it. Add to 2nd item in this Bill 2*d.* more for extra labour.

382 ft. cube. Fir framed-in roofs :—

This is worth another 2*d.* beyond last item—i. e. 2*s.* 6½*d.* per foot cube; it has mostly to be framed in its place, and there is a little more hoisting. There is more labour framing, as most of it is cut on splay at ends and notched; and, again, there is a little more waste.

237 ft. cube. Fir framed-in partitions :—

This is worth 2*d.* per foot cube more; the scantlings are small to cube, and there is a good deal of labour framing.

94 ft. super. Centering to trimmer arches :—

Trimmer centres are generally left in, to lath to and form ceiling under. The material (rough) costs about 2*d.* per foot super., and labour about 3*d.*; add profit to these, say 5½*d.* or 6*d.* in all.

9 ft. super. Centering to apertures :—

Use the same price for this item. Centres may be re-used but it is very seldom they are, as they would cost as much to search out and convert as to cut up new material.

82 ft. run. Centering to 4½ in. soffits :—

These are generally slips of deal cut cambering on the top edge, and cost 1*d.* to 1½*d.*, per foot run, and ½*d.* fixing; say, *with profit, 2½d. per foot run.*

23 ft. run. Centering to 9 in. ditto :—

Two ribs similar to the above, and fillets nailed across. The value is about the same as a foot of the centering to apertures, for there is as much labour to make a 9-in. as a 14-in., or even larger. The value of the 5-in. of fillet is small. If they give the width of all the centres, I should price 9-in. at 5*d.* per foot run, 14-in. at 6½*d.*, 18-in. at 9d., this last item increasing 1*d.* more beyond the others, as it would require stronger fillets or lagging, because of the bearing.

221 feet super. Wrot face on fir :—

This could be done by machinery, and then smoothed up by the joiner. The cost is ¾*d.* per foot super. Where the quantity is very large it can be priced at this sum, including profit; here the quantity is small, price at 1*d.*

367 ft. super. Firring out rafters to form slight curve at eaves :—

This requires on every rafter (generally 14 in. from centre to centre), a slip of fir, and of about 2½ in. in thickness, i. e. the same as the rafter, which has to be guessed at; there is about the same labour and material as to turning pieces per foot run; here there is only a foot run in every 14 in. super., but the fir is thicker; say 1½*d.* per foot, including profit.

29 squares, 90 ft. super. ¾-in. boarding for slates :—

The rough boards that are not good enough for joinery are used for this, and they are worth about half the value of good ¾-in. Sometimes ¾-in. rough boards are imported from the Baltic, but 1-in. and 1¼ in. are the general thicknesses sent ready-cut from there, and it would be cheaper to use 1-in. imported than to cut battens into ¾-in. purposely. The cost of 1-in., as imported, is about 8*s.* per square in the Docks, and it holds full the 100 ft. super., unlike the other imported boards, such as wrot flooring and matchboarding. The *floor is about* 5 per cent. short, as bought by the present reputed square, of 200 ft. run, 6 in. wide; in 6½ and 7 in. there is no loss. In matchboarding there is, of course, the additional loss on the tongue. Sometimes the rough boarding is sold by the Petersburg standard of 120—12 ft. of 1½ in. by 11 in. 1*l.* per standard is about 1*s.* per square of 1 in.

	£	*s.*	*d.*
Cost of ¾-in. boarding, or imported 1-in. ..	0	8	0
Cartage to Hampstead	0	0	9
Ten per cent. waste	0	0	10
2 lb. of nails	0	0	2½
Labour	0	2	6
	0	12	3½
Ten per cent. profit	0	1	2½
	0	13	6

4 squares super. ¾ in. boarding, in narrow widths :—

This is badly described, for I expect it is laid on the curved firring taken previously. The labour of laying this is worth double the last, and it will take double the quantity of nails. There must also be an addition for sawing and waste converting into narrow widths.

	£	*s.*	*d.*
¾-in. boarding, as before	0	13	6
2½ per cent. additional waste	0	0	4½
Additional sawing	0	2	0
Extra labour, say	0	2	6
2 lb. nails, extra	0	0	2½
	0	18	7
Ten per cent. profit on 5*s.*	0	0	6
	0	19	1

100 ft. super. ¾-in. wrot battens to soffit of eaves, and framed backings :—

Formed by a slip of deal, say 2½ in. by 1½ in., to 3 in. by 2 in., halved on to feet of rafters and nailed (in some cases only nailed), and nailed to a plate in the wall. *Labour, material,* and profit are worth about 4*d.* per foot super. for the backings (if halved) and the same amount for the battens, as it is an awkward position to fix in. Of course if there were several squares this could be much reduced. Matched and beaded battens, in quantities, out of imported match-battens, are worth (including profit) about 2½d. per foot super., fixed complete on ceilings, and a little less upright to walls. I give hereunder the detail of a square of ¾-in. yellow matched battens on ceilings.

	£	*s.*	*d.*
¾-in. matched batten in Docks	0	9	0
Cartage	0	0	7
Twenty per cent. waste, and loss in measurement, say	0	1	11
Cleaning up or smoothing	0	1	6
Nails	0	0	2½
Fixing	0	6	0
	0	19	2½
Ten per cent. profit	0	1	11
	1	1	1½

This is a little more than 2½*d.* per foot super. If this soffit is cut out of ordinary battens, as used for joinery, the cost would be more.

	£	*s.*	*d.*
¾-in. deal, including waste, *P.C.*	0	0	1¾
Planing	0	0	0¾
Fixing	0	0	1
	0	0	3½
Ten per cent. profit, say	0	0	0½
	0	0	4

1 square, 25 ft. super. 1-in. boarding, traversed for zinc, and firring to falls :—

	£	*s.*	*d.*
One square of rough boarding, as given before, including profit	0	13	6
Traversing joints, *P.C.*	0	2	0
Firring to falls, a tapering slip nailed to joists, but not to a curve, as in former item, *P.C.* ..	0	8	4
	1	3	10
Ten per cent. profit on 10*s.* 4*d.*	0	1	0½
	1	4	10½

96 ft. super. 1 in. dormer cheeks, and small framed backings (measured net):—

The backings here are uprights, rough-framed only.

	£	s.	d.
Backings, material, and labour, *P.C.*	0	0	3½
1-in. rough boarding, as last, *P.C.*, say ..	0	0	1¾
Additional waste, say 7½ per cent...	0	0	0½
	0	0	5¾
Ten per cent. profit, say	0	0	0¾
	0	0	6½

21 ft. super. 1-in. gutter board and bearers:—

	£	s.	d.
1-in. rough boarding as before, including labour, &c.	0	0	1¾
Additional labour and waste (gutters require to be larger at the top end than at the outlet)	0	0	0¾
Bearers, say the same as last item of backings	0	0	3½
	0	0	6
Ten per cent. profit on 4½*d.*	0	0	0½
	0	0	6½

In large quantities this item may be priced at from 5 to 10 per cent. less.

62 ft. 1½ in. Fir-framed ridge:—

This is of the same value as the other timber in roof. It is thin, but there is but little labour on it. Price 1 in., at one-eighth of a foot cube of fir framed-in roofs, at 2*s.* 11d., say 4½*d.*

26 ft. super. Fir-framed bracketing for lath:—

Price this the same as the backings taken for soffits.

32 ft. super. Fir-framed bracketing for cove to octagonal Oriel (measured net) :—

This is worth little, if any, more. The band-saw cuts the circular or hollow face nearly as readily as another saw—the straight; there is a little more material required. The slight extra labour for sawing to hollow face is compensated for by the length, as a cove is seldom less than 18 in. to 24 in. girth (this is more, as will be seen by the angle-brackets taken after), and there is no more labour in framing each piece than in a 12-in. to 15-in. bearer to soffit. Considering the size of this cove, price at the same as the former backings.

No. 8. Extra for angle-brackets to ditto, averaging 3 ft. 9 in. girth :—

These should be of stouter deal, and require to be bevelled two ways on outer edge, to take the laths from the two sides that mitre on it :—

	£	s.	d.
Say extra material	0	0	4
Extra labour	0	0	4
	0	0	8
Ten per cent. profit, say	0	0	1
	0	0	9

2537 ft. super. Asphalted hair-felt, lapped and well nailed (measured net) :—

The cost of this felt is 1d. per foot super, less a trade discount of 40 per cent. (it is possible to get a larger discount if bought of the actual manufacturer).

	£	s.	d.
Cost of felt, net, per 100 ft.	0	5	0
Add loss in laps, say	0	0	3
Labour laying	0	1	3
Nails	0	0	3
	0	6	9
Ten per cent. profit	0	0	8
	0	7	5

327 ft. run. Rough chamfer on fir :—

No size is given for this; if not beyond 1½ in. in width on the face, it is worth ¾*d.* per foot run, including profit.

40 ft. run. Rough chamfer *circular* :—

This is worth about twice the straight.

40 ft. run. Deal feather-edged springer :—

A sawn fillet, spiked to the trimmer, to form skewback for arch and worth, with profit 1½*d.*, or in larger quantities, 1*d.*

46 ft. run. Tilting fillet :—

This is similar to the last rough fillet, but smaller, and worth, in small quantities like this, ¾*d.* per foot run, including profit, and, in large quantities, ½*d.* The cost of 100 ft. run is 1*s.* 9*d.* to 2*s.*; 100 ft. could be fixed for 1*s.*, and nails will cost about 1 *d.*

98 ft. run. Valley fillet :—

This is a fillet like the "springer," and worth the same price, as I presume it is intended for the eaves in valley to tilt them. If large, 1½*d.* per foot, if small, 1*d.*, including profit. The size varies very much with different architects.

148 ft. run. Splayed eaves fillet :—

This is the same thing that I have considered the last item was for, but used to the eaves against gutter; price at the same.

70 ft. run. 3 in. by 2 in. rough fillet :—

This is worth a little more than ground joists. It is small, and there is, therefore, more sawing. Ground joists would be 4½ in. by 2 in., to 5 in. by 2½ in.; 3 by 2 cubes to half an inch; this, at 2*s.* 5*d.* per foot cube, comes to 1¼*d.*, say 1½*d.*, *which will allow for* sawing.

286 ft. run. 7 in. by 1¼ in. wrot staff beaded fascia :—

This could be got either out of 1¼ in. flooring or out of joiners' deals. The two costs are given. The prices given for deals in joiners' work include waste :—

	£	s.	d.
7 in. of 1¼ in. deal .. .. at 2½*d.*	0	0	1¼
Planing 7 in. on face, and 1¼ in. on edge, at ¾*d.*	0	0	0½
Sticking bead	0	0	0¼
Fixing, labour, and nails	0	0	0¾
	0	0	2¾
Ten per cent. profit, say	0	0	0¼
	0	0	3

I give the fixing here rather low, presuming it is fixed on the feet of rafters, *cut level*, or on the upright part of bracketing taken elsewhere.

	£	s.	d.
1 ft. run of 7 in. by 1¼ in. floor, at 16*s.* per 180 ft.	0	0	1⅛
Smoothing face and edge	0	0	0⅜
Bead, fixing, and nails, as before	0	0	1
	0	0	2½
Ten per cent. profit	0	0	0¼
	0	0	2¾

No. 4.—Irregular mitres to ditto :—

Price mitres at a foot run, and irregular ones at two feet. This latter would therefore be, taking the fascia at 3*d.* per foot run, 6*d.*

46 ft. run. 1½ in. rounded roll for lead :—

A rough deal roll, about 2 in. high, generally rounded by machinery, and nailed to the boarding; 1½*d.* per foot run will include profit. The cost of the roll is seven-eighths of a penny by machinery, material and labour; ⅛*d.* will cover waste and nails, and ¼*d.* fixing.

59 ft. run. 2 in. rounded roll for lead :—

Add ¼d. for increase in size.

159 ft. run. 2 in. rounded roll, bird's-mouthed on :—

Add ¼*d.* for rough sawn bird's-mouth on underside. The chamfers taken earlier were, no doubt, one on each side of ridge and hips, for this roll to fix on.

20 ft. run. 2 in. rounded roll, bird's-mouthed on and saw-cut bent to curve :—

Add 1*d.* for running a number of saw-cuts across grain to allow of its bending easy, and for extra labour fixing. These additions include profit.

48 ft. run. 2½ in. by 1½ in. rounded nosing and mitres :—

Price this at 2½*d.*; i. e. 1¾*d.*, the same value as rounded roll No. 2, ¼*d.* for extra size, and ½*d.* for mitres.

413 ft. run. 2 in. by 1½ in. herring-bone strutting securely spiked :—

This is generally measured straight *across* the top of joists, and if 11 in. joists (no depth is given), would take, at 12 in. apart, about 2 ft. 8 in. in every 14 in.—i. e. about 2 ft. 4 in. run of rough sawn fillet to the foot run. This measurement may mean the actual running feet of fillet required, but it is very doubtful.

	£	s.	d.
2 ft. 4 in. of 2 in. by 1½ in., say at 2*s.* 2*d.* cube	0	0	1¼
Four ends cut on splay to fit joists	0	0	0½
Labour and nails, fixing	0	0	1¼
	0	0	3
Ten per cent. profit, say	0	0	0½
	0	0	3½

If to 9 in. joists, price at 3*d.*, including profit. The price of 2*s.* 2*d.* per foot cube is made up of the four first items in detail of cost for fir in ground joists, the addition being made for sawing; 6*d.* would cover this; but then the fractional part could *not be much* nearer than 1¼*d.*

23 ft. run. Fir-framed bracketing for cove, 12 in. girth under eaves :—

This is worth a little more than that taken previously to Oriel; the girth is so much less, and labour, therefore, comparatively more. Add 1*d.*; ½*d.* if large quantities.

146 ft. run. Fir-framed bracketing for cove, 24 in. girth :—

This I should price at the same as the backings taken in the supers, say 4*d.* per foot super., or 7*d.* per foot run, 24 in. girth; labour lessening with increase of width.

No. 4. Extra for angle-brackets to the last :—

The former angle-brackets were priced at 9*d.* each, including profit. The price is of course for the extra only, as given in that detail. The cove would be measured over the entire surface, even of that part supported on these angle-brackets; say 7*d.* for these, as they are shorter.

No. 1. Short length of rebated drip :—

A rebated fillet fixed across the gutter at the drip, and including a groove in the gutter-board. There being only one, price it at 6*d.*, including profit If there were any quantity of them, they could be priced at 4*d.*, including profit.

No. 20 Fir-framed bridging-pieces :—

These are most probably to carry partitions whose sills run parallel with the joists, and are short pieces of quartering about 13 in. long, notched into joists at both ends, and worth about 6*d.* each, including profit.

PORCH GABLE.

13 ft. run. 7 in. by 3 in. fir, wrot all round, and framed in truss to gable front :—

	£	*s.*	*d.*
Fir framed in roofs, as before	0	2	6¼
Add extra labour in trusses and hoisting ..	0	0	6
Including profit	0	3	0¼

1¾ in. cube, at, say, 3*s*. per foot cube, equal 5*d*., and add to this 1 ft. 8 in. of planing at 1*d*., including profit, say 6*d*. in all.

13 ft. run. 9 in. by 3 in. fir-framed, &c., as last:—

This is the same value per foot cube as the last item, which, with the planing, comes to 4*s*. 9 in. by 3 in. cubes to 2¼ in. This, priced at 4*s*., comes to about 9*d*. These are very small items; if they were large ones I should go closely into them, as neither 7 in. by 3 in. nor 9 in. by 3 in. have any sawing on them except cross-cutting. The price could be cut down to about 8½*d*., as follows:—

	£	s.	d.
Cost of deals, say 12*l*. per Petg. stg. This contains 165 cubic feet, and is equal per cubic foot to	0	1	6
Five per cent. waste	0	0	1
Cartage	0	0	2½
Labour, framing, and fixing	0	1	0
	0	2	9½
Ten per cent profit, say	0	0	3½
	0	3	1

2¼ in. cube at 3*s*. 1*d*. equals 7*d*., and to this add 2 ft. super. of planing at ¾*d*., including profit, making 8½*d*. in all.

4 ft. run 4 in. by 4 in. Fir-framed, &c., as last:—

Price this at the same price—4*s*. per foot cube.

14 ft. run. 4 in. by 3 in. deal moulding and mitres:—

As this is not otherwise described, I should expect it to be of a stock pattern. The cost of joiner's work will, of course, materially depend on what machinery the builder has, and the cost of such items as these, on what architect he has to deal *with; as to have* to get a pair of moulding-irons made for so small a quantity would cost about 16*s.* to 18*s.* by the time they were sharped and fixed for work, the only other alternative being (if a special pattern were insisted on) to work it by hand at an indefinite cost, workmen varying so much in the time they take over anything of this kind. It *could* be prepared in about 10 hours of a joiner, *P.C.* 7*s.* 6*d.*, i. e. 6½*d.* per foot run, material costing, say, 2*d.* per foot run, and fixing, 1*d.*, and 3*d.* for mitres, and then add profit. Out of stock patterns it could be fixed complete, with profit, at 6*s.* per foot cube; add 3*d.* per foot for mitres. I have dwelt over this item, for it is of a kind that often occurs, and needs considering carefully. By the word "fixing" I mean exclusive of the labour of mitring, for which is added 3*d.* per foot. In quantities, the "stock" price could be reduced considerably.

12 ft. run. 4 in. by 3 in. deal moulding, one member cut into billets:—

Add to the price of last item 6*d.* per foot run for cutting the billet member, including profit. The cost of this is, of course, speculative. If the billets are very short, the price must be increased. It is a good plan, when you intend to go very closely in for the work, to take the bills of quantities, go carefully through them, and mark everything you consider indefinite, or needing reference, and then, when inspecting the plans, &c., take the quantities with you, and write your notes on the margin as you refer.

No. 1. Turning to 4 in. by 4 in., 2 ft. 6 in. long.

The cost of this will vary with the number of members in the work. A common 1½ in. baluster *is* turned for 1½*d.*, and 7*d.* to 9*d.* is not out of the way for an Early English one; and so, with this, 1*s.* to 2*s.* 6*d.* is the cost. There is only one, so that the highest price may be taken (with this item, as with many of these small ones, they may be in larger numbers in other quantities, and a slight variation multiplied may lose a job), say 2*s.* 9*d.*, including profit.

No. 2. 4 in. by 3 in. curved ribs, 2 ft. 6 in. long, framed both ends, out of 9 in. by 3 in.

	£	*s.*	*d.*
Cost of 6 in. cube of timber, say at 2*s.*	0	1	0
Cutting two ends and framing	0	0	9
Planing cross-grain	0	0	5
Circular sawing, and planing to edges	0	0	5
	0	2	7
Ten per cent. profit	0	0	3
	0	2	10

I use the average of the prices of timber given earlier in this bill, including sawing, cartage, and waste, and have here allowed planing, as a curved rib would scarcely be used out of sight. The planing, on faces, too, would be nearly the same as to edges, as far as the cost of labour, because of the shortness of grain from its curved shape.

No. 2. 3 in. wrot and framed brackets, 2 ft. 6 in. by 3 ft:—

This is a gallows bracket, the diagonal strut being curved two ways, and the bearer moulded.

	£	*s.*	*d.*
Labour, 7 hours of a joiner, at 9*d.*	0	5	7½
Cost of material	0	1	6
Fixing, i.e. scribing back edge, cutting and pinning end, and making good	0	0	9
	0	7	10½
Ten per cent. profit, say	0	0	9½
	0	8	8

A *large quantity could* be done for 25 per cent. less.

BILL No. 7.

JOINER AND IRONMONGER.

The deals for joiner's work to be of the best quality, well seasoned and free from all defects.

The joiner's work to be put in hand immediately on signing the contract, the framings put together, but not glued up.

The floor boards to be listed clear of sap, and if they open 1-16th of an inch, they are to be taken up and relaid.

This last paragraph must be noticed in pricing the flooring; too much pains cannot be taken with floor-boards to see that they are well seasoned before laid.

FLOORS AND SKIRTINGS IN DEAL.

45 squares, 15 ft. super. 1 in. yellow batten floor, laid with straight joints and splayed headings, and mitred borders to hearths :—

This is badly taken; the borders should be separate. The price of a border has to be spread over two to six squares of floor.

	£	s.	d.
Cost of good 1-in. floor delivered, say	0	12	0
Waste, 10 per cent.	0	1	3
Extra ditto for throwing out sappy boards, or listing them, say	0	1	0
Nails and border	0	0	7
Labour laying	0	3	0
	0	17	10
Ten per cent. profit	0	1	9½
	0	19	7½

25 ft super. 1 in. flooring as last, and bearers in openings :—

To the last price of 2¼*d.* cost add 2*d.* for bearers, including fixing, and 1*d.* more for extra labour in small quantities, and then add profit on the whole.

453 ft. run. 7 in. by ¾ in. square skirting and mitres, and fitted ends :—

These mitres and fitted ends ought to be taken separately; good ⅞ in. flooring, holding ¾ in., may be used for this, and only needs smoothing.

	£	*s.*	*d.*
Cost of ⅞ in. floor per ft., including waste ..	0	0	0¾
Smoothing	0	0	0¼
Fixing, including mitres, grounds, &c.	0	0	1½
	0	0	2½
Ten per cent. profit	0	0	0¼
	0	0	2¾

No. 4.—Rounded corners to ditto :—

This is a rounded angle, and the end planed; say 2*d.* each, including profit.

351 ft. run. 7 in. by 1 in. torus moulded skirting :—

	£	*s.*	*d.*
Cost of this, out of imported yellow skirtings	0	0	2
Ten per cent. waste	0	0	0¼
Fixing, &c. (mitres, &c., taken after)	0	0	1
	0	0	3¼
Ten per cent. profit, say	0	0	0½
	0	0	3¾

If the builder has machinery, this can be got out of 7 in. by 1 in. selected flooring at ½*d.* per foot less, and it may be priced at per 100 ft. run, and so cut a little lower.

No. 50. Fitted ends :—

These are described as *fitted* ends, but have often, by the terms of the specification, to be housed into the architraves, and fitted only against the chimney-pieces, so that housing must be provided for. Price at one foot of the skirting for housings, and half that price for fitted ends; or, where they are put together, add the two prices together, and divide by two. This gives three-fourths of a foot, say 2¾*d.*, including profit.

No. 48. Tongued and mitred angles :—

These, if properly done, are worth about twice the last item, i. e. one and a-half feet.

323 ft. run. 9 in. by 1¼ in. moulded skirting :—

Here machinery is absolutely necessary; in fact it is almost impossible to carry on a business of any extent without it, the competition is so keen. 9-in. skirtings are not generally kept 1¼ in. thick in stock by moulding merchants. In this case, I will show the cost of 100 ft. run, preparing and fixing :—

	£	*s.*	*d.*
75 ft. super. 1¼ in. deal at 2½*d.*	0	15	7½
100 ft. run, planing and sticking moulding at one process, and cleaning up after machine	0	3	6
Add 10 per cent. waste	0	2	0
Cartage	0	0	6
Fixing, &c. (grounds and nails 2*s.* 2*d.* out of this)	0	10	6
	1	12	1½
Ten per cent. profit	0	3	2½
	1	15	4

This gives 4¼*d.* per foot run, including the extra cartage from builder's yard to the job. The prices given for imported goods are "delivered."

No. 48. Fitted ends :—

Price these, as before, at three-fourths of a foot run of the skirting.

No. 36. Tongued and mitred angles :—

Price these at the same rate as the last, i. e. one and a-half feet run of the skirting; say 6*d.* each, including profit.

No. 4. Irregular tongued and mitred angles :—

These are worth the value of two regular mitres of 45°, say 1*s.* each, including profit.

No. 2. 6 in. lengths *circular* to quadrant corners of skirting :—

Reckon *circular* three times the value of straight, and there is nearly as much labour on 6 in. as on 12 in. The quantity is so small that I should price each one at 3 ft. of straight, i. e. 1*s.* 1*d.*, and add 1*s.* for the two heading joints against the straight skirting, which are not mentioned.

SASHES AND FRAMES IN DEAL.

8 ft. super. 2 in. moulded fanlight, fixed :—

This is a small sash fixed over transom head of door-frame, and would cost about 6*d.* per foot super. to make, labour and material, and 1*d.* to fix; add 1*d.* for profit. The size and quantity of these govern the price. A large quantity could be done at 7*d.*, including profit; both of these prices are presuming there are not a lot of bars of the Queen Anne or Early English style in them, which would raise their value 50 per cent. at least.

6 ft. super. 2 in. moulded skylight, hung :—

This is one of the plainest and cheapest kind of sashes or lights made. The quantity here is excessively small. I should, therefore, price it the same as the fanlight, adding 1*d.* for hanging. Where there is a large quantity of skylights of same pattern, they could be fixed at 5*d.*, and hung at 6*d.*

54 ft. super. 2 in. moulded casement:—

Without sizes it is almost impossible to give a detail of some of the joiner's work. The cost of labour would be about 3½*d.* per foot super from the bench, and 1*d.* hanging. The material would cost (presuming there is not more than one or two bars to each casement) about 1*d.* per foot super.

	£	s.	d.
Cost of labour	0	0	3½
Material	0	0	1
Hanging	0	0	1
	0	0	5½
Ten per cent., say	0	0	0½
	0	0	6

This detail has been formed from the presumed contents of a casement 17 ft. 6 in. super. Smaller sizes must be priced at an increased rate, and "labours" allowed for if not taken.

26 ft. super. 2 in. moulded casements hung folding, with moulded stops for glass, fixed with brass screws:—

Add to the last item ½*d.* per foot super. for the rebates, and 1½*d.* for the moulded stop and fixing, and ½*d.* for brass screws and additional profit, 8½*d.* in all.

86 ft. super. 1½ in. moulded casement, hung folding, in 4 in. by 3 in. rebated and beaded frames, with 6 in. by 4 in. head, and 7 in. by 3 in. oak, double sunk, weathered, and throated sills (in No. 6):—

These, it will be seen (No. 6 frames contain 86 ft.) average only 14 ft. 4 in. super. each, and, therefore, are small frames. I consider ordinary size should average 20 ft.) super., and these smaller ones to be worth 25 per cent. more than ordinary sizes.

	£	s.	d.
1½ in. casement hung (½*d.* less than 2 in.) ..	0	0	5½
4 in. by 3 in. frame, with 6 in. by 4 in. head, and oak sill	0	0	7
Add for rebates, say..	0	0	0½
	0	1	1
Add 25 per cent.	0	0	3½
	0	1	4½

The price of *7d.* for frame, &c., is arrived at by cubing the frame at *4s. 6d.* per foot cube, and allowing extra for oak sill.

38 ft. super. 2 in. moulded casements, hung in two-light frames, the frames 4½ in. by 3 in. with 4½ in. by 2½ in. mullion, all rebated and moulded one side, and chamfered; the sill 4½ in. by 3 in. oak, double sunk, weathered, and throated (in No. 2):—

This is near enough to come under the ordinary average.

	£	s.	d.
1½-in. casements and frames (not folding) ..	0	1	0½
Add fractional thickness (casements and frames)	0	0	1
Add for mullion and chamfering	0	0	1
Add for moulding, &c.	0	0	0½
	0	1	3

56 ft. super. 2 in. moulded fixed casement in three-light frame, with two transoms and two mullions, the frame 4½ in. by 3 in., the mullions and transoms 4½ in. by 2½ in., all rebated and moulded one side, and chamfered the other, and with 4½ in. by 3 in. oak, double sunk, weathered, and throated sill (in No. 1):—

This is a large frame, 56 ft. in one, and should be priced at the *ordinary* price. It is bulky to shift about in making, and there are the four pieces of extra frame; but they are covered by its size, and the casements being fixed.

No. 1. Extra on fixed casements for casement 1 ft. 8 in. by 2 ft. 3 in. being hung on butts:—

This is too small to price at *1d.* per foot super. It would take nearly an hour to hang, *P.C. 9d.* The butts are, no doubt, taken farther on; say, therefore, *10d.*, with profit.

A.—98 ft. super. 2 in. deal moulded sashes, double-hung in deal cased frames, with 1¼ in. pulley-stiles, 1 in. inside and outside linings, oak, double-sunk, weathered, and throated sills, brass axle pulleys, patent lines and iron weights for sheet glass, the frames grooved all round for linings (in No. 5):—

The cost of these is as follows:—

	£	s.	d.
Material (deal)	0	0	4
Labour making	0	0	5½
Brass axle pulleys	0	0	1
Oak sill, extra over deal	0	0	1
Lines and weights	0	0	2
Hanging sashes..	0	0	0¾
	0	1	2¼
Ten per cent. profit, say	0	0	1¾
	0	1	4

I have put the 10 per cent. profit a little more, to allow for cartage. In some of the items of joinery cartage would come to too small a fraction to add. 2-in. doors, for example, in fair loads, can be carted three miles, and include loading and unloading, at about one-tenth of a penny per foot super., *P.C.;* sashes and frames are cumbrous, and take up much more space than doors.

36 ft. super. 2 in. deal moulded sashes and frames as last, but in four *small frames*:—

These are *very small*, and worth, at the least, 50 per cent. over ordinary sizes, say 2*s.*, including profit.

107 ft. super. 2 in. deal moulded sashes and frames as before, but with lead weights for plate glass (in No. 5):—

These require larger sash-lines, larger pulleys and weights, and are worth 2*d.* per foot super. more than first item of 1*s.* 4*d.* if iron weights can be used; if they require lead, 5*d.* per foot. super extra, each price including profit. It is only safe to provide the larger amount.

88 ft. super. 2 in. sashes and frames as A, but Venetian frame with 2 in. solid mullions, the side lights fixed, the centre light double hung, the lines passing over side lights (in No. 2):—

This is worth the same price as A, the lesser labour, from side lights being unhung, covers the extra cost of mullions, taking lines over side lights, and the extra pulleys required to carry lines over the head to the cased linings at sides.

116 ft. super. 2 in. deal moulded sashes double hung, in Venetian frames, all as last described, but weighted for plate glass (in No. 2):—

To the last price add the 5*d.* addition for weights as before.

171 ft. super. 2 in. deal moulded sashes in three-light frames with cased mullion, the sashes all double hung as before for plate glass, but the weights in mullions to have brass pulley in same, so that one weight may act for two sashes (in No. 2):—

The extra cost of pulleys, &c., is covered by the saving in weights.

15 ft. run. Extra on 2 in. casement and frame for rebated and rounded hanging stile and groove (as sketch):—

The sketch shows a bead in projection on the stile or casement, and hollow and rebate worked on frame; the extra is for these labours, and not for the stile. Price at 1*d.* for each of the rebates, and ¾*d.* for each of the other labours of bead or rounded tongue, and hollow, 3½*d.* in all, including profit.

7 ft. run. Extra on 2 in. casement for hook rebated, meeting style:—

This is the same as the last in value, and the dimensions might have been added together.

21 ft. run. Extra on sashes and frames, for the frame on one side having 1½ in. wrot back linings rebated to form door-frame:—

This item is not very clear, as a sash frame terminates about 2 ft. 9 in. from the floor, and a jamb lining is required to go down to it; the value of 1½ in. back lining, 6½ in. wide over ¾ in. by 5 in. wide, for the jamb lining must cover both the linings of frame, is 1*d.* per foot, and planing and rebating another 1*d.*, say 2½*d.* per foot, including profit.

16 ft. run. Splay rebated edge to bottom rail of 1½ in. sashes:—

Say ¾*d.* per ft. run for each of these labours, including profit, i. e. 1½*d.* for splay edge and rebate together; the splay edge is really included in price given for sashes.

89 ft. run. Splay rebated edge to bottom rail of 2 in. sashes:—

There is so little difference between the cost of this item and the last that it is not worth adding; price at 1½*d.* as last.

143 ft. run. Groove in *Oak:*—

This is worth ½*d.* per foot run, including profit; in large quantities it can be done for less, and by machinery at ¼*d.* including profit, in reasonable quantities; it must be borne in mind there is the setting up the machine, i. e. putting in the grooving saw, and setting fence to gauge, and carrying the oak to the machine and back to the shop, to be provided for.

4 ft. run. 6 in. by 3 in. oak, sunk, rebated, throated, and moulded sill:—

Oak sills, worked and fixed complete, are worth 10*s.*

per foot cube, including profit, 6 in. by 3 in. cubes to 1½ in.; this at 10*s.* comes to 1*s.* 3*d.*, and add 2*d.* for moulding.

13 ft. run. 6 in. by 4½ in. oak, double sunk, weathered and throated sill to octagonal Oriel:—

Take 2¼ in. (the cube of 6 in. by 4½ in.) at 10*s.* per foot cube, which comes to 1*s.* 10½*d.*, and add the value of mitres, which are not taken.

	£	*s.*	*d.*
2¼ in. of oak sill .. .. at 10*s.*	0	1	10½
No. 2 mitres and 2 joint screws (spread over 13 ft.) per foot	0	0	4
Add for being double sunk	0	0	2
	0	2	4½

I have put these mitres at 1*s.* each, and the joint screws at 1*s.* each, including profit.

107 ft. run. 1¼ in. by ⅛ in. galvanised wrought-iron tongue and bedding in white lead:—

This can be cut from galvanised hoop-iron of the size given, and can be cut to lengths, straightened and fixed, including white-lead and profit at 2*d.*; the prime cost of the hoop-iron ready galvanised is about 1*d.* per foot.

No. 64. Moulded horns to 2 in. sashes:—

These may be done with profit at 2½*d.*, and where there are large quantities, as low as 2*d.*; the price given for sashes covers these.

No. 1. 2 in. casement, hung on butts in 4½ in. by 3 in. frame with *oak* sill, the frame 2 ft. by 3 ft. 6 in.:—

The size of this is very small, and there being but one, the lowest it can be put at is 50 per cent. beyond the standard or ordinary average price given earlier in this Bill.

DOORS AND FRAMINGS IN DEAL.

6 ft. super. ¾ in. ledged trap-door :—

A common ledged door is worth 6*d.* to 6½*d.* per foot super., including profit and hanging, made up as follows :—

	£	*s.*	*d.*
Labour (a joiner *can* make 2 in a day)	0	0	2½
¾ in. matched battens, including waste	0	0	1½
Ledges	0	0	0¾
Nails	0	0	0¼
Hanging	0	0	0¾
	0	0	5¾
Ten per cent., say	0	0	0¾
	0	0	6½

Trap-doors, being small, are worth about 25 per cent. more. An ordinary ledged door would contain about 16 ft. to 18 ft. super.

8 ft. super. 1¼ in. square framed dwarf cupboard door hung folding :—

1¼ in. square-framed doors are worth 8*d.* per foot super., made up thus :—

	£	*s.*	*d.*
Material, including waste, &c.	0	0	2½
Labour	0	0	4
Hanging	0	0	0¾
	0	0	7¼
Ten per cent. profit	0	0	0¾
	0	0	8

This cost of material at 2½*d.* includes glue and glass paper; the cost of labour is for small quantities, larger can be done at 3½*d.* *P.C.;* these are in both cases for hand labour, and this cost is for ordinary 1¼ in. square-frame doors; this item of 8 ft. is for *dwarf* doors, and worth about 20 per cent. more, and add 1*d.* for being hung folding.

5 ft. super. 1¼ in. two-panel, moulded one side, dwarf cupboard-door:—

Add 1*d.* to the price of 8*d.* for moulding one side, making 9*d.*, and then add 20 per cent. for small sizes, in every item where the quantity is so *very small* a little more should again be added, because there is evidently only *one*, and it requires setting out, &c., the same as if there were a dozen.

123 ft. super. 1½ in. four-panel square-framed doors:—

To the price of 1¼ in. four-panel square-framed doors add ½*d.* for material and labour, making 8½*d.*, including profit; labour is very little more.

75 ft. super. 2 in. four-panel square-framed doors:—

To the last item of 8½*d.* add 1½*d.*, making 10*d.*, including profit; this addition is 1*d.* for material and ½*d.* for labour.

17 ft. super. 2 in. four-panel square-framed doors, the upper panels rebated, beaded, and with shifting beads for glass:—

It is much better to take these beads separate, as so many sets, than to leave the estimating builder to spread their value over a superficial quantity; it is done by some surveyors. The saving, in having no panels at top, pays for rebating and beading, and add 1*d.* to the last price for loose beads, making 11*d.*, including profit.

21 ft. super. 2 in. four-panel door, bead flush one side and square-framed the other:—

To the 10*d.* given for the 2 in. four-panel square-framed doors, add ½*d.* for thicker panels and 1*d.* for beading and return beading them, making 11½*d.*, including profit; if bead butt, add ½*d.* only for beading.

17 ft. super. 2 in. four-panel doors, the lower panels moulded one side and the upper panels rebated, beaded, and with shifting beads for glass :—

To the 10*d.* given, add 1*d.* as before for shifting beads, and 1*d.* for moulding one side ; if the quantity were larger, ½*d.* would do for moulding one side, as only the lower panels are to be done.

69 ft. super. 2 in. three-panel doors, the lower panels moulded both sides, the upper panels with diminished stiles moulded, and with shifting mouldings for glass :—

Take the 2 in. four-panel door at 10*d.*, the mullions and panels saved at top pay for the diminished stiles and moulding them, add 1*d.* for shifting mouldings for glass, it is as easy nearly to mould as to bead, and 1*d.* for moulding two bottom panels, making 1*s.* in all, including profit ; these prices are all very low, but it must be remembered I am writing of "close competition."

271 ft. super. 2 in. four-panel moulded both sides door :—

To the 10*d.* for square framed, add 1*d.* each side for moulding, including profit.

37 ft. super. 2 in. framed and braced door filled in with ¾ in. matched and beaded battens :—

To the 10*d.* for square framed, as before, add 1½*d.* for extra labour to batten filling in place of panels, and slight extra cost of material in braces ; the labour on last is covered by mullions omitted, as I presume this door to show two panels at the back and flush on the whole of the face of the front ; the braces being fixed diagonally in the two panels.

The two prices given make 11½*d.*, including profit.

27 ft. super. 2¼ in. two-panel door, the lower panel moulded one side, with panel raised, mitred, and bolection moulded, and the upper panel with diminished stiles rebated, moulded, and with shifting mouldings for glass:—

A 2¼ in. two panel door is worth 1*d.* per foot super. more than 2 in. four-panel for labour and materials, including profit; raised panels, 1½*d.* per foot super. over the door for each panel, 1*d.* for loose mouldings as before; one panel instead of four pays for the extra labour in diminished stiles, and add ½*d.* per foot super, for one moulded panel, 1*d.* per foot super. for the one side bolection moulded (one panel only, the whole surface being measured).

	£	s.	d.
2 in. door	0	0	10
Extra on ¼ in.	0	0	1
1 raised panel	0	0	1½
Loose mouldings	0	0	1
1 moulded panel	0	0	0½
1 do. bolection moulded..	0	0	1
Including profit	0	1	3

These various prices on small labours will be found useful in pricing other joiner's work that varies from the plainest kind, and each one is as low a price as I should advise anyone to use.

40 ft. super. 1½ in. moulded one side spandrel framing, measured net:—

To the price of 8½*d.* for 1½ in. four-panel square-framed door add 1*d.* for moulding one side, and add 20 per cent. for being of spandrel shape; these spandrels generally require a rough mould made to the shape on the works, to make them from, this the 20 per cent. covers; price at 11½*d.*, including profit.

14 ft. super. 2 in. one panel, moulded both sides framing :—

Being in *one* panel only, there is no more labour comparatively in this, though small, than in an ordinary four-panel door, and it may therefore be priced at the same rate of 10*d.*, adding 2*d.* for the two moulded sides.

THICKNESSES IN DEAL.

24 ft. super. ¾ in. ledged cistern cover and bearers, fitted to iron; part to remove :—

To the price of 6½*d.* already given for ¾ in. ordinary ledged doors, add 2*d.* for rough bearers and fitting to iron; both prices include profit. If there were any large quantity this might be done for ½*d.* less, as the backs, not being seen, do not require smoothing, the match battens as imported being rough planed to thickness, and near enough for such work.

20 ft. super. 1 in. shelves and bearers plugged as provision :—

	£	*s.*	*d.*
1 in. deal, *P.C.*	0	0	2
Planing two sides (one only need be smoothed)	0	0	1½
Bearers and fixing	0	0	1½
	0	0	5
Ten per cent. profit	0	0	0½
	0	0	5½

Price this at 6*d.*, as the quantity is small.

5 ft. super. 1 in. wrought panel :—

	£	*s.*	*d.*
1 in. deal *P.C.*	0	0	2
Planing and smoothing two sides	0	0	2
Cutting to size and fixing	0	0	1
	0	0	5
Ten per cent. profit	0	0	0½
	0	0	5½

Here, again, the quantity being small, should be priced at *6d.*

7 ft. super. 1 in. wrought panel cross-tongued:—

To the price of *6d.* for last item (quantity again being small), add 1*d.* for cross-tongued joint, the bearers covering "fitting."

21 ft. super. 1 in. staff-beaded fascia:—

This may be priced as follows:—

	£	s.	d.
1 in. deal *P.C.*	0	0	2
Planing one side and edge	0	0	1
Staff bead	0	0	0½
Fixing, including nails	0	0	1
	0	0	4½
Ten per cent. profit	0	0	0½
	0	0	5

50 ft. super. 1¼ in. cross-tongued shelves and bearers plugged as provision:—

To the price of 5½*d.* for the 1 in. shelves, add ½*d.* for extra thickness, and 1*d.* for cross-tongue, each price including profit.

54 ft. super. 1¼ in. pilasters to dormer fronts and framed backings:—

I do not understand what backings could be required if these are planted on the fronts, unless it can be short bridging pieces framed horizontally between quarters:—

	£	s.	d.
1¼ in. deal, *P.C.*	0	0	2¼
Planing one side and edges, say	0	0	1¼
Fixing, including backings and nails	0	0	3
	0	0	6½
Ten per cent. profit, say	0	0	0¾
	0	0	7¼

7 ft. super. 1¼ in. cross-tongued window-board and bearers:—

	£	s.	d.
1¼ in. deal, *P.C.*	0	0	2¼
Planing one side and rounding edge	0	0	1¼
Cross-tongued joint, say	0	0	1
Fixing, including bearers and nails	0	0	2½
	0	0	7
Ten per cent. profit	0	0	0¾
	0	0	7¾

The quantity being small, price it at 8*d.*

25 ft. super. 1¼ in. cross-tongued plain window back and backings plugged:—

This can be priced at the same as the last item, the labour, &c., being almost the same.

12 ft. super. 1¼ in. moulded window-back and framed backings:—

This is not described as framed, but there is little doubt it is so. To the price of the 1¼ in. square-framed door, 8*d.*, add moulding one side, 1*d.*, and backings 1*d.*, and deduct 1*d.* for the back being rough, making 9*d.*, including profit.

10 ft. super. 1¼ in. framed w.c. seat and riser and dovetailed bearers:—

This is of the same value as the 1¼ in. window back, &c., less the moulding; it is rough on back, and the value of labour framing window-back covers extra cost of bearers which are dovetailed and one end let into walls, and they should be rebated to take the seat, the flap and frame then resting on the upper surface of the bearers and edge of seat.

6 ft. super. 1¼ in. clamped flap and beaded frame :—

The frame is tenoned together, and flap clamped both ends.

	£	s.	d.
1¼ in. deal, *P.C.*	0	0	2¼
Framing and clamping	0	0	5
Hanging and fixing	0	0	1½
	0	0	8¾
Ten per cent. profit, say	0	0	1
	0	0	9¾

The quantity being small, I have priced the labour 1*d.* above what I should have done had there been more.

11 ft. super. 1¼ in. framed and beaded cupboard fronts :—

I should price this at the same price as the cupboard doors ; if to dwarf doors, then at the dwarf price.

19 ft. super. 1¼ in. moulded one side enclosure to bath fixed with brass screws and cups to remove, and deal-framed backings :—

Take the 1¼ in. moulded window-back as a basis, i. e. 9*d.*, and add 1*d.* for extra strong bearers and framing, and ½*d.* for brass screws, cups, and fixing, all prices including profit.

9 ft. super. 1½ in. staff-beaded skylight curb, tongued at angles :—

	£	s.	d.
1½ in. deal, *P.C.*	0	0	2¾
Planing two sides and edge, and beading ..	0	0	2¼
Tongueing four angles	0	0	1½
Fixing	0	0	1½
	0	0	8
Ten per cent. profit, say	0	0	1
	0	0	9

7 ft. super. 1½ in. framed and beaded cupboard front :—

To the price of the 1¼ in. fronts add ½*d.* for the extra thickness, including profit, and add for small quantity.

112 ft. run. Labour to groove :—

Price this at half the price of oak groove—i. e. at ¼*d.* per foot run, including profit.

20 ft. run. Labour on rounded edge to 1¼ in. deal :—

Price this at ½*d.* per foot run, including profit. In large quantities, these labours can, of course, be done much cheaper by machinery. This price of ½*d.* is a low one.

54 ft. run. Labour to tongued angle of 1¼ in. deal:—

This may be done by working a tongue—i. e. rebating one side and grooving the other, or by two grooves and loose tongue glued in. The first method is the best, and nailing only would then be sufficient. Say, 1½*d.*, including profit for two grooves and tongue as described.

4 ft. run. Labour to irregular tongued angled :—

Price this *irregular* labour as before at twice the price of the regular labour—i. e. 3*d.* per foot run, including profit.

3 ft. run. Labour to tongued and staff-beaded angle to 1¼ in. deal :—

Add ½*d.* for the bead to the price of 1½d. for the tongued angle given before.

17 ft. run. Plugging wall for framing :—

This is driving small wood plugs every 12 in. to 24 in. (according to what is to be fixed, its length, &c.), into the joints of brickwork, to nail or screw to ; and varies in value from ½*d.* to 1½*d.* per foot, including profit. It should not be priced here, as I have included all plugging, &c., in "fixing."

1398 ft. run. Narrow framed and splayed grounds:—

This is one of the items the specification should be referred to for, and it should be checked roughly from the plans, as some surveyors call skirting grounds, narrow framed and splayed grounds, although all the framing they get is being nailed to the plugs. I believe these to be architrave grounds only, fixed round windows and doors; but they certainly should be described as wrought, if this is the case. A narrow architrave ground would be about 3 in. wide, i. e. three out of a 9 in. deal, and ¾ in. or ⅞ in. thick.

	£	*s.*	*d.*
3 in. of ¾ in. or ⅞ in. deal, per foot run.. ..	0	0	0½
Planing face and edges and framing two stiles	0	0	1¼
Fixing	0	0	0½
	0	0	2¼
Ten per cent.	0	0	0¼
	0	0	2½

713 ft. run. Narrow framed and splayed grounds plugged:—

Add to the last item ½*d.* for plugging walls, including profit. Splayed, in these items, means one edge bevelled to hold down plastering, or key it.

98 ft. run. Moulded stop for glass and mitres:—

The value of this is 1*d.* or 1¼*d.* per foot run, including mitres and profit; as I have priced all the loose beads in doors, &c., which, certainly, in the description read or *inferred*, "including beads," I should not price these unless, on carefully looking through the Joiner's Bill any item could be found in which they were described, but not priced.

5 ft. run. Bull-nose corner to 1¼ in. deal:—

A solid piece of deal, tongued and grooved, or rebated on both edges, worked to quadrant shape on outer face, and out of 3 in. by 3 in.; it is worth 4*d.* per ft. run fixed complete, including profit.

84 ft. run. 4½ in. by 1 in. rebated linings, tongued at angles :—

	£	s.	d.
4½ in. of 1 in. deal, at 2*d.*	0	0	0¾
Planing one face and edges	0	0	0½
Single rebating	0	0	0½
Tonguing the angles	0	0	0¾
Fixing	0	0	0½
	0	0	3
Ten per cent. say	0	0	0½
	0	0	3½

14 ft. run. 6 in. by 1 in., rebated linings tongued at angles :—

To the last price add ¼*d.* for material; the variation in labour is scarcely worth noticing, and the profit included in that item is sufficient for this.

164 ft. run. 6 in. by 1 in. rebated linings splayed one edge fixed on splay, and tongued at angles :—

To the last item add ¾*d.* for extra labour in making and fixing; the profit in the first of these three items still covers 10 per cent. on this one.

31 ft. run. 7 in. by 1 in. rebated linings, &c., as last :—

There is only 1 in. of deal to add; the labour varies so little it is scarcely worth noticing. *Add* ¼*d.* to the last item, making 4¾*d.* These linings could most of them be got out of good floorings at a little less cost than out of cut deals, the largest saving being in the planing. A 7-in. floor board only holds when imported 6¾ in. bare; if this width would do, there is the sawing to width and planing edges saved; the floor-board must, of course, be smoothed over, and the edges shot true; the 6-in. imported floor-board holds 5¾ in. bare; if this width after shooting would do, there is the same saving effected: for the 4½ in. linings there is 5-in. imported flooring, holding 4¾ in.; this would allow of shooting both edges, and still leave 4½ in.

34 ft. run. 5½ in. by 1¼ in. rounded nose window-board and bearers :—

Among the supers. earlier in this Bill is an item of 1¼ in. cross-tongued window-board and bearers; price this at the same, less the cross-tongue—i. e. at 6*d.* per foot super. *P.C.*, or say 3*d.* per foot run of 5½ in., and ½*d.* for profit, making 3½*d.* in all. There is about ¼*d.* added in these prices (for at 6*d.* *P.C.* 5½ in. comes to 2¾*d.*), as there is the same labour to rounded-edge of 5½ in. as to 10 in. or 11 in.

32 ft. run. 5½ in. by 1¼ in. window-board, &c., as last, but with a small moulding, tongued on under :—

To the last price of 3½*d.* add 1*d.* for the small moulding and tongueing on, including profit.

No. 4. Returned and mitred ends :—

This I am sure is an error in the quantities; there must be more than two sets of window-boards in the above items, and if 5½ in. wide, they would require notching at ends to return past the linings and take architrave moulding. Provide only what is taken, and price these as returned mitred ends with moulding under at 3*d.* each, including profit. In several cases before I have added in anything I have considered omitted, but here the number of ends is not easily guessed at, while window openings vary from 18 in. up to 120 in. The number would be more likely 24.

11 ft. run. 5 in. by 1¼ in. rebated, and staff-beaded linings, tongued at angles :—

To the 3½*d.* that was given for 4½ in. by 1 in. linings add as follows :—

	£	*s.*	*d.*
4½ in. by 1 in. linings	0	0	3½
Add material	0	0	0¼
Bead	0	0	0½
	0	0	4¼

The ½*d.* given as profit on 3*d.* for the 4½ in. by 1 in. linings is sufficient for this item.

18 ft. run. 7 in. by 1¼ in. rounded nose window-board, with small moulding tongued on under :—

To the price of 4½*d.* given for 5½ in. by 1¼ in. window-board, &c., with moulding under, add ½*d.* for material, &c., including profit.

25 ft. run. 2 in. by 1½ in. moulded, and twice rebated capping :—

This is an item that could be done very cheaply if there were any quantity of it, and the builder had a 4-cutter moulding machine, as the various labours could then be done at one transaction, i. e. by passing once through the machine. It would require to be cleaned up by a joiner after it came from the machine. The quantity here is so small that it would not pay to set up and sharp 8 irons for it (for each cutter block to do good work and clean should have 2 irons). Price this at 3*d.* per foot run, including profit, for hand labour, or where there is a saw to rebate and a single-cutter moulding machine 2½*d.* With the 4-cutter moulding machine this can be prepared as follows :—

	£	*s.*	*d.*
100 ft. run, 2 in. by 1½ in. = 16 ft. 8 in. super. 1½ in., at 2¾*d.*	0	3	10
Sawing out, say	0	0	6
Moulding and planing, &c., to 4 sides	0	1	2
Cleaning up, say	0	1	6
Prime cost per 100 ft. run	0	7	0

100 ft. only could not be done at this—there must be several hundred feet, and where the quantity exceeds 1000 ft. run, it can be done for a few pence per 100 ft. less.

No. 4. Mitres :—

These could be done at the same rate as before, one foot run of the material mitred.

150 ft. run. 6 in. by 1½ in. single rebated linings tongued at angles:—

To the price of 3¾*d.* given for the 6 in. by 1 in. linings earlier in this Bill, add ½*d.* for material, making 4½*d.* per foot run, including profit.

152 ft. run. 6 in. by 1½ in. double rebated linings, as last:—

To the last price add ½*d.* for rebate, including profit; these rebated linings can be done for a little less where machinery is kept, especially where there is 150 ft. run of one size; here there is 300 ft. of one width. After rebating one edge the other can be turned and done by single-cutter machine, or cut out by a saw and finished by a joiner.

70 ft. run. 11 in. by 1½ in. double rebated linings, &c., as last:—

The last price supers. to 8½*d.*, including profit; the labour is comparatively less on 11 in.; price this item at 8*d.* per foot super.; this is about 7¼*d.* as 11 in. It is undoubtedly the best way to take the jamb and other linings in running feet, as in these quantities, and not in one item of so many feet super. of 1 in., 1¼ in., or 1½ in., as in some cases the variation of labour is small, the extra material being almost all the variation; between 6 in. and 11 in. there is, of course, an addition of 5 in. of planing; the backings are longer, but the rebates are the same, and the tongueing and grooving to head requires but a very little more.

34 ft. run. 16 in. by 1½ in. double rebated linings, &c., as last:—

Take the last price of 8*d.* per foot super., and add 1*d.* per foot super. for cross-tongue joint; this comes to 1*s.* per foot run, 16 in. wide, including profit. Sometimes these wider linings are got out of three pieces of deal, the two pieces forming rebate, being grooved and tongued to the centre-piece; but there is no saving in this unless done by machinery. If there were a larger quantity I should price at 1*d.* per foot run less, because there is no more labour to rebate on this than to the 6 in. lining.

4 ft. run. 4 in. by 2½ in., twice rebated, twice beaded, and twice moulded transom:—

A fir proper door-frame is worth from 4*s.* 6*d.* to 5*s.* per foot cube, including profit, and transoms about 6*d.* per foot cube more for labour; there is so little in one, that the labour, or most of it, must be done by hand. 10 parts of an inch cube at 5*s.* 6*d.* per foot cube comes, say, to 4¾*d.*

11 ft. run. 3 in. by 3 in. wrought and framed legs and bearers:—

Price these at the same price as frames, per foot cube, i. e. 5*s.*; this comes to 3¾*d.*, including profit.

108 ft. run. 4½ in. run. by 3 in., proper door frame:—

Price this at the above rate of 5*s.* per foot cube, say 5½*d.*, including profit.

43 ft. run. 4½ in. by 3 in., twice rebated, and four times moulded frame:—

Price this at the same price as the transom—i. e. 5*s.* 6*d.* per foot cube; 1⅛ in. at 5*s.* 6*d.* comes to 6¼*d.*, including profit.

26 ft. run. 5 in. by 3 in., twice rebated, and four times moulded frames, &c.:—

Price this at the same—i. e., 5*s.* 6*d.*; 1¼ in. cube at this comes to, say 7*d.*, including profit.

49 ft. run. 4½ in. by 4 in., rebated and twice moulded frame:—

Price this at 5*s.* per foot cube, this comes to 7½*d.*, including profit. I have not added for it, but 4 in. deal is more expensive than 3 in. The cost of deal is averaged.

17 ft. run of 5 in. by 4 in. rebated and twice-moulded frame:—

Price this again at 5*s.* per cube foot; 1⅝ in. cube at this price comes, say, to 8½*d.*, including profit.

4 ft. run. Cased head, forming part of sash frame:—

I presume this means a cased or hollow head in place of a solid one, and if so there is little, if any, extra cost worth noticing in so small a quantity, the mortising of ends is saved, and the linings let down and nailed, the soffit lining being cut short at the posts.

10 ft. run. 4½ in. by 4½ in. fir, wrought all round, chamfered and framed to octagon Oriel.

This can be priced at the same price as the door frames just dealt with, unless stop-chamfered; but as it is not stated to be stopped, I presume the chamfer is mitred at the head. Quantity will make a considerable difference in the cost of these frames. Where there is a good quantity and machinery is kept, they may be done for 10 per cent. less.

18 ft. run. 4½ in. by 4½ in. fir, rebated and chamfered and beaded head to octagon Oriel.

This is of the same value of 5*s.* per foot cube, although it has to be cut from timber, or else have the stop planted on; this last is the best job, as cut deals are so much sounder and so much better seasoned than baulk timber; these heads would have to be mitred (irregular) being to "octagon Oriel," and this ought to have been mentioned; there is no other way of securing the heads than those mentioned—mitring and bolting, or halving and then pinning them together with hard-wood pins, but the bolting is the better. 1⅝ in. cube at 5*s.* per foot, say to 8½*d.*, and add 4*s.* for the joints and bolts; this item would then be extended at 17*s.* 6*d.* *all.* There is really no reason why this 4*s.* should be included by the estimating builder beyond its being too small a sum to speak to the quantity surveyor about, should he obtain the work.

32 ft. run. 6 in. by 6 in., window-frame to octagon Oriel (as sketch):—

The sketch shows a wall-post to the above window, most of the labours being on the splay. Price it at 6*s.* per foot cube—i. e. 1*s.* 6*d.* per foot run, including profit. This could be built up out of 3-in. or 4-in. deal, and be stronger and better, for the reason before stated, that the cut deals are so much better seasoned. The added parts would, of course, have to be screwed on, the joints being filled with white-lead paint.

32 ft. run. 6 in. by 6 in., window-frame as last to Oriel (as sketch):—

Here the sketch shows the angle-posts that stand on the mitres of head and sill, which are commonly called "mullions"; the labours being mostly splayed, and in excess of the last item—say to the extent of 2*d.* per foot run. This makes 1*s.* 8*d.* per foot run, including profit; price 3 in. at 6*s.* per foot cube = 1*s.* 6*d.*, and add to this the 2*d.* for extra labour.

580 ft. run. 2¼ in. by 1 in., moulded architrave and mitres:—

It is usual to take the mitres with architraves; but I think it better to have them separate, as in other mouldings they are mostly taken so. The cost of a moulding of this description, including cleaning up, is about 8*s.* per 100 ft. run; to this add for waste—

	£	*s.*	*d.*
One foot at 8*s.* per 100 ft., say	0	0	1
Ten per cent. waste..	0	0	0¼
Fixing, including mitres and nails..	0	0	1
	0	0	2¼
Ten per cent. profit	0	0	0¼
	0	0	2½

466 ft. run. Architrave, formed with 4½ in. by ¾ in. beaded grounds, and 2½ in. by 1 in. moulding and including mitres :—

	£	s.	d.
Cost of grounds	0	0	2½
Ditto of moulding	0	0	2¼
	0	0	4¾
Profit	0	0	0½
	0	0	5¼

No. 10. Extra for moulded bases, 10 in. high :—

The height of these is not deducted from the length of the architrave moulding, and is, therefore, extra only over the latter; the value is 10*d.* to 1*s.* each extra, including fixing and profit, say 10*d.*, as there are ten alike.

355 ft. run. 5 in. by 2 in., moulded architrave and mitres :—

Large architrave mouldings of this description may be cubed at 6*s.* per foot, fixed complete, including profit, and add 15 per cent. for mitres; this comes to 5¾*d.* per foot run. The quantity here is a fair one, too, and would pay for setting up a machine, preparing irons, &c., as the moulding is large; there are, of course, fewer mitres to architraves than to small quantities of moulding, which are probably mitred round dormers, &c., so allow only 15 per cent.

No. 30. Extra for moulded bases to ditto, 10 in. high :—

Say 1*s.* each, including fixing and profit—this with, say, 5*d.* for the architrave moulding taken down to the ground, makes 1*s.* 5*d.* each; these bases, being 30 in number, could be moulded by machinery in long lengths and cut to 10 in. after; the price given is for working them by hand in lengths.

23 ft. run. 4 in. by 3 in. moulding:—

Here the quantity is small and should be priced at the same as the 4 in. by 3 in. moulding in "Carpenter," which was priced to be done by hand, say 11*d.*, including fixing and profit.

No. 12. Octagonal mitres:—

If these are to the 23 ft. of moulding just priced, there are mitres enough, and if they had been included in the description as most of the others have, who would have guessed there was one in less than 2 ft.? I expect it is an error, and some mitres belonging elsewhere have been added on here by the abstracter. I have given previously for all irregular mitres, such as these are, 2 ft. of the material mitred, but here, as the price of the moulding is extra high through being hand-worked, price a regular mitre at 6 in., and those which are irregular at 1 ft.; if this moulding had been worked in quantities by machinery it could have been priced, as the 5 in. by 2 in. previously, at 6*s.* per foot cube —a mitre at one foot of this would then come to about the same as 6 in. at 11*d.*; if these mitres are correct in number, and belong to this 23 ft., they increase the price nearly 50 *per cent.*

33 ft. run. 6 in. by 3 in. moulding to pediments of dormers:—

Here, again, the quantity is small; where machinery is kept the saw will bevel these large mouldings down, and the planing or moulding (single cutter) machine planes them; if there were any moulding irons in stock that would suit this or the last moulding, small as the quantity is, it would pay to do them by machine, but not if irons had to be made. As I have said before, hand-labour on such things is very expensive. This item done by hand is worth 1*s.* 3*d.* per foot, including fixing and profit, presuming the moulding to extend over the whole face; I priced the last item at 11*d.*, presuming it did, if there is any part of it square, say, 2 in., then reduce the price 1½*d.* per inch on the plane face only —i. e. 3*d.* for the 2 in.

No. 6. Apex mitres:—

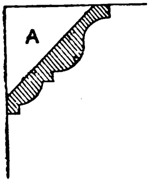
Treat these irregular mitres in the same manner as the others: price them at 2 ft. run, but cube at 6*s.* per foot cube, as there is, of course, no more value in the labour to mitre, whether the material is prepared by hand or by machine: 6 in. by 3 in. cubes to 1½ in., and this at 6*s.* per foot cube comes to 9*d.* for a regular mitre, or 1*s.* 6*d.* for an irregular one. These prices are high.

No. 12. Splayed ends:—

These are each of half the value of an irregular mitre.

36 ft. run. 5 in. by 4 in. moulded cornice to dormer fronts:—

Many of these large cornice moulds are prepared out of 1 in. to 1½ in. deal, as sketch, and fixed against angle backings similar to A, and this I should consider would be



done in this manner: it would require 6 in. by 1½ in., say, of deal or pine. If this has to be done by hand to a special pattern there will only be the saving of material, and the cost of backings and fixing will come to quite as much as the saving effected; but these mouldings are stuck in pine and kept in stock by the London Moulding Mills in 2 or 3 patterns similar to the one shown, at half the price it would cost to prepare by hand, provided they may be used, and as there are many of these large mouldings here it would be worth while to refer to the details, if the work is required: where the details are not "got out," ask the question if these mouldings would do out of "stock patterns;" if they will, price this at the 6*s.* per foot cube fixed, including profit, cubing it at 5 in. by 4 in.; if this cannot be done, then price at the same rate cube given for the mouldings already priced.

No. 12. Mitres to ditto:—

Price these mitres at 10*d.* each—i. e. at one foot run of 5 in. by 4 in., at 6*s.* per foot cube.

No. 4. Tongued angles to 12 in. by 1¼ in.:—

It does not state what these belong to; price them each at half an hour's labour of a carpenter and joiner, *P.C.* 4½*d.*, with profit, 5*d.*

No. 18. Notched and returned and mitred ends to window-board:—

Here are some of the ends I was speaking of when pricing the window-boards, where No. 4 ends were taken; these are worth 3*d.* each, including profit.

No. 14. Notched and returned and mitred ends, with small moulding under:—

Price these at 4*d.* each, including profit; this price is rather low.

No. 1. Seat-hole cut and dished:—

This will take a joiner about an hour to cut and finish, *P.C.* 9*d.*, say, with glasspaper and profit, 1*s.*

No. 1. W.C. seat and riser made to remove easily:—

The seat and riser are screwed instead of nailed to the bearers, the additional labour is about 1½ hours of a carpenter and joiner, *P.C.* 1*s.* 1½*d.*, and screws 1½*d.*, say, with profit, 1*s.* 6*d.*

No. 31. 4 in. by 1 in. dovetailed backings 11 in. long:—

These, I presume, are intended for fixing the jamb linings to, they are included in the prices given for those items.

No. 24. 4 in. by 1 in. dovetailed backings 16 in. long:—

The same remark applies to this item.

No. 1. Deal cradle to lavatory:—

This is a set of rough bearers to carry the top of lavatory and varying, of course, with the shape of the top; the one taken I presume to be square—i. e. square angled and in a recess; this requires fillets at backs and ends, and if thought necessary—i. e. if the length requires it, one also along the front. The best manner of fixing these lavatory tops is to have a roughly-planed deal top of 1 in. or 1¼ in. deal laid on the fillets spoken of, and then the marble on top: it prevents any breakage. Sicilian or vein marble is very "short" in the grain and readily breaks. The cost and value of this item is as follows, where no deal top is used:—

	£	s.	d.
8 ft. run, rough fillet, at 1*d.*	0	0	8
1½ hours of a carpenter, at 9*d.*	0	1	1½
Nails and plugs, say..	0	0	1½
	0	1	11
Ten per cent. profit	0	0	2½
	0	2	1½

No. 6. 1¼ in. cross-tongued pediments to dormer fronts, 4 ft. by 1 ft. 6 in., and including framed backings:—

This is a plain triangular-shaped piece of deal cut to shape and fixed on the top of the pilasters already dealt with; on the face of its two top sloping edges the cornice priced earlier is fixed; the size given is, no doubt, the extreme one. I will treat it, though, as a square, presuming the pieces cut off its angles to be wasted; there is no doubt, that they can be cut one out of the other; two 9 in. by 1¼ in. deals glued together give the height of 1 ft. 6in., and if 14 ft. long, the 6 could be cut from it, leaving a waste of 2 ft. by 1 ft. 6 in. on the 6, or 6 in. on each, so that each would cut out of 3 ft. 6 in. super. of deal, *net.* The reader may treat it in this way, and deduct the 2 ft. 6 in. of material and profit on it if he chooses.

	£	s.	d.
6 ft. super., 1¼ in. deal at 2¼*d.*	0	1	1½
6 ft. super., planing one side, at ¾*d.*	0	0	4½
6 ft. super., cross-tongued joint at 1*d.*	0	0	6
Backings or ledges to stiffen it	0	1	0
Cutting to shape and fixing	0	2	0
	0	5	0
Ten per cent...	0	0	6
	0	5	6

If the deduction is made it would be on the first three items, and the profit on them—i. e. 11*d.* deduction, including profit, for 2 ft. 6 in. less on those three items, if the pediments are cut one out of the other, as I should think they could be.

No. 1. 1¼ in. dovetailed sink, 1 ft. 6 in. by 1 ft. 3 in. and 8 in. deep in clear and including bearers:—

This supers to 6 ft. 9 in., and would take a joiner 4 to 5 hours to make, say 4½ hour at 9*d.*, this equals 6*d.* per foot super.

	£	s.	d.
6 ft. 9 in. super., 1¼ in. deal at 2¼*d.*	0	1	3¼
Labour	0	3	4½
Fixing, including bearers	0	1	3
	0	5	10¾
Ten per cent. profit	0	0	7¼
	0	6	6

This comes to about 1*s.* per foot super., including profit: larger sinks would cost less in proportion. If this were double the length and width there would be very little increase in cost of labour if the same depth were kept, and this is very good depth for even a larger sink.

No. 1. Dovetailed sink, 12 in. square, with 1¼ in. bottom, and 3 in. by 1½ in. rounded rim on two sides and 1 in. flashing boards 15 in. high on two sides:—

This would take almost the same time to make; there is a little less material and less fixing, say 5*s.*, including profit.

No. 1. 1½ in. wrought and framed top, 4 ft. 6 in. by 1 ft. 9 in., with opening formed for sink and with sets of draining grooves worked in same:—

The labour in this is almost identical with that in the clamped flap and frame on page 74. This is ¼ in. thicker and a little larger; there is, of course, the grooving to allow for:—

	£	s.	d.
7 ft. 10½ in. sup., at *P.C.* 8¾*d.*	0	5	9
Extra labour and ¼ in. of material, say 1*d.* ..	0	0	8
Forming grooves, &c., say 3 hours at 9*d.* ..	0	2	3
	0	8	8
Ten per cent. profit	0	0	11
	0	9	7

No. 1. 9 in. by 2 in. shelf, 7 ft. long, to chimneypiece with rounded corners and deal cut brackets, cut and pinned to wall, and fixing :—

	£	*s.*	*d.*
5 ft. 3 in. of 2 in. deal, at 3½*d.*	0	1	6½
11 ft. 11 in. of planing, at ¾*d.*..	0	0	9
Extra on two ends cross-grain and two rounded corners	0	0	4
2 brackets	0	1	6
7 ft run, cutting and pinning edge of shelf or chasing in and nailing to plugs	0	1	2
	0	5	3½
	0	0	6½
	0	5	10

No. 1. Deal kitchen dresser, 9 ft. long and 9 ft. high, with potboard and bearers and framed legs and skirtings, fitted with three drawers, having two handles to each, and 2 in. clean deal top 1 ft. 10 in. wide and 1¼ in. cut standards, and four 1¼ in. shelves and beaded fascia, and lined at back with ¾ in. matched and beaded linings and backings plugged to wall :—

A deal dresser price at 10*s.* per foot run, 7 ft. high, including profit, but not including backs or inclosures, and 6 ft. to 9 ft. long; a shorter one at a higher price *pro rata*, and on this basis price others. Jot down in pencil by the side of the item how any price formed from several amounts is arrived at like this one is, as given in the following detail —this is for future reference if necessary, and will be found especially useful in the price of brickwork, timber, and those items of larger importance; the backs here are stated to be nailed to bearers "plugged to walls"; unless this dresser is to be fixed in a recess or the backings fixed flush in plastering, it will make a bad finish; the best way is to nail the ¾ in. matched battens to the edge of shelves and top, &c., and plane the edges next standards, which would be visible :—

	£	*s.*	*d.*
9 ft. of dresser 7 ft. high, at 10s.	4	10	0
2 ft. extra in height; this is only height of standards, and one shelf more, say	0	10	0
81 ft. sup. ¾ in. battens, &c., at 4*d*.	1	7	0
Including profit	6	7	0

The price of 10*s*. per foot run for the standard dresser I gave as a basis to price from, is arrived at from keeping the cost of many of different sizes, for the purpose of getting an easily-remembered general price.

No. 2. Attend plumber to cistern :—

This item was included in the one of "Attend on all trades in all trades," so that no price need be put to it; they are worth 1*s*. 6*d*. to 2*s*. each, including profit.

No. 3. Attend plumber to w.c.'s :—

This was also included; the value varies, as sometimes the joints have to be trimmed for the D-traps; 2*s*. 6*d*. each, if there is no trimming to do, and about 5*s*. if there is, is the value. In both cases profit is included.

No. 3. Attend plumber to sinks :—

This is also included; the value is speculative, and it would be necessary to refer to the sinks; the small ones taken in the numbers could be priced as low as 1*s*., including profit; there is little, if anything, for the carpenter to do for the plumber to stone sinks. 1*s*. would certainly cover cost and profit on one.

No. 3. Attend plumber to lavatory :—

This is also included; the value is 1*s*. 6*d*. to 2*s*. 6*d*. including profit.

No. 1. Attend plumber to bath:—

This is also included: it is worth about 3*s.* 6*d.*, including profit, to an ordinary bath for the work usually required.

STAIRCASE IN DEAL.

34 ft. super. 1¼ in. cross-tongued landing and framed bearers:—

The size of the bearers should have been given, 6 in. by 2 in. or 5 in. by 2½ in. would do for most landings, where the bearing is not too great, though they are often put in more; the value of this item is 8½*d.*, including profit, made up as follows:—

	£	*s.*	*d.*
1¼ in. deal	0	0	2¼
Planing one side	0	0	0¾
Cross-tongued joint	0	0	1
6 in. by 2 in. bearer, say	0	0	1¾
Fixing, including trimming, nails, &c.	0	0	2
	0	0	7¾
Ten per cent. profit, say	0	0	0¾
	0	0	8½

Price at 9½*d.*, at there is not much of it.

180 ft. super. 1¼ in. rounded nose-treads with small moulding tongued in under and 1 in. risers tongued together and glue blocked and bracketed on, and including strong fir-framed carriages:—

Stairs are very often let to a staircase hand at so much for all labour, fixed complete, including use of machinery where it is kept; this item is worth 1*s.* 3*d.* per foot super., including profit. I give hereunder a detail:

	£	*s.*	*d.*
Cost of deal, 1 in. and 1¼ in., say	0	0	2¼
Planing and rounding edge	0	0	1¼
Small moulding and tongueing on	0	0	1
Glue-blocking	0	0	1
Bracketing and fixing	0	0	1½
Carriages and fixing	0	0	1½
Putting together, and fixing complete	0	0	5
	0	1	1½
Ten per cent. profit	0	0	1½
	0	1	3

I have put the bracketing at 1½*d.*—this will, I consider, pay for putting one to each carriage; if only one is put, i. e. to the centre carriage, this price could, of course, be reduced.

18 ft. super. 1¼ in. rounded nose treads, with small mouldings tongued in under, and 1 in. risers tongued together, and glue blocked and bracketed on, and including strong fir-framed carriages, all as last, but in winders, measured net:—

It is to be presumed that the surveyor has added for the nosings in measuring; this leaves only the waste to allow for, which is not very great; add to the price of 1*s.* 3*d.* given for treads and risers in the last item, 1*d.* for cross tongue, and 1*d.* for waste; making 1*s.* 5*d.* in all, including profit.

12 ft. run. 1¼ in. rounded nosing tongued on, and with small moulding under:—

This may be priced at the same as the window nosing in earlier part of this Bill.

14 ft. super. 1½ in. moulded wall string :—

This *may* be got out of 11 in. by 1½ in. without glueing up; to all ordinary stairs it *can* be: the cost is as follows:—

	£	s.	d.
1½ in. deal	0	0	2¾
Planing face and edge	0	0	1
Moulding	0	0	1
Fixing	0	0	2
	0	0	6¾
Ten per cent. profit	0	0	0¾
	0	0	7½

It is rather a difficult matter to separate the labour of the strings, treads, &c.; the housings are taken separate afterwards, and all framings or joints at head or foot of string; the 1*d.* is only for staff bead or some small moulding, unless done by machinery, when the price will cover any ordinary moulding in fair quantities.

32 ft. super. 1½ in. moulded wall string plugged:—

These strings would read much clearer if taken by the foot-run, stating the width (as the jamb-linings were taken); to the last price of 7½*d.*, add 1*d.* for plugging, making 8½*d.*, including profit.

No. 3. Tongued angles:—

The item which follows this is "No. 8 short ramps." I do not see how with these there can be a tongued angle to the wall string; these three angles must, I should say, belong to skirting on the landings taken in item 1 of staircase, and, if so, are worth 4*d.* to 6*d.* each, including profit:—

No. 8. Extra for short ramps and heading joints:—

Reckon ramped work at twice the value of straight (there is no width of string to guide one); taking the short ramps at 24 in. each, this would be equal to 4 ft. of straight at, say, 8*d.* (this is about the mean average price of the string plugged and unplugged). As this is "extra only," i. e. the strings have already been priced at 8*d.*, there is only 8*d.* per foot to add:—

	£	s.	d.
2 ft. extra only, at 8*d.*	0	1	4
Heading joint	0	0	6
Including profit	0	1	10

Many short ramps do not exceed 18 in. in length; they are formed by glueing or jointing a piece on to the end of string and cutting the top edge to circular shape. As this is a moulded string, I should add a little extra for working moulding circular, which is worth three times straight; the twice straight given for ramp would not cover this; make the price 2*s.* 2*d.* to 2*s.* 6*d.* each, including profit.

37 ft. super. 1½ in. staff-beaded and cut outer string:—

Here, as there is no width given, it is difficult to say whether it is jointed or not. It certainly ought to be described as "cross-tongued," in order to cover the carriages—for I should think it must be jointed.

	£	s.	d.
1½ in. deal	0	0	2¾
Planing 2 sides and edges	0	0	2
Cross-tongue joint	0	0	1
Staff bead	0	0	0½
Cutting or notching (mitre allowed on treads and risers)	0	0	1
Fixing	0	0	1
	0	0	8¼
Ten per cent. profit	0	0	1
	0	0	9¼

4 ft. super. 1½ in. staff-beaded and cut outer string, *ramped*:—

Price this at 2 ft. of the straight, i. e. 1*s.* 6*d.* per foot super., including profit.

No. 1. Heading joint :—

For this a price was given a few items back; *6d.* each, including profit. A joiner would take about half an hour over one; this is a prime cost of 5*d.* The joiner in this case is a staircase hand, getting 10*d.* per hour; some of the *best* get 11*d.* and 1*s.* per hour.

No. 11. Ends housed :—

These are the ends of outer strings framed to newels and pinned. I did not allow for them in the prices of strings, the fixing being merely hauling about, offering-up, &c.; these would take about the same as last item, and may be priced at the same price.

30 ft. run. 4 in. by 4 in. framed newel :—

This is worth about 5*s.* per foot cube, including profit; $1\frac{1}{3}$ in. cube at 5*s.* = 7*d.*, say, per foot run.

6 ft. run. 5 in. by 5 in. ditto :—

This may be priced at the same price per foot cube, $2\frac{1}{10}$ in. cube, at 5*s.* per foot cube = $10\frac{1}{2}$*d.* including profit.

No. 6. Turnings to 4 in. by 4 in. newels, 24 in. long each :—

The cost of these varies very much with the design. They are turned as low as a shilling each, and an Early English one would cost 3*s.* to 5*s.*, because of the many small members used. Use a fair average price—say, 2*s.* each, including profit. This would allow a prime cost of 1*s.* 10*d.* each.

No. 1. Turning to 5 in. by 5 in. newel, 24 in. long :—

Add 3*d.* for increase of size—say 2*s.* 3*d.* each, including profit. This addition of 3*d.* is low.

No. 4. Turned pendants to 4 in. by 4 in. newel:—

This reads as though the material were to be included A pendant would not exceed 6 in. in view and 2 in. for pin. The best way is to let the newel be long enough to pass through landing ceiling, and leave enough to turn the pendant on:—

	£	s.	d.
9 in., say of 4 in., at 2s. cube..	0	0	3
Turning, including pin	0	0	9
Boring hole in newel and glueing, &c... ..	0	0	3
	0	1	3
Ten per cent. profit..	0	0	1½
	0	1	4½

No. 30. Ends of moulded nosed treads and risers housed:—

There is only the cutting grooves to be priced here, the wedging-in of treads and risers was included in the sum set down for "fixing." The cost of cutting the two grooves is 3*d.* to 4*d.* Price them at 4*d.*, including profit. This is a close price.

No. 3. Ends of winders ditto:—

Add a penny to last price. The extra length of groove to these in wall string is almost counterbalanced by the shortness of those next newel.

No. 28.—Ends of moulded nosed treads and risers, cut and mitred to outer string, and with return moulded ends:—

The labour in this is to notch the end of tread up as far as the rounded edge and plant on a loose piece of moulding worked the same as moulded edge of tread, and mitre it with this, returning one end of the piece of moulding planted on—the labour in mitring of riser has been included before; price them at 9*d.* each, including profit; it would take a joiner about three-quarters of an hour to prepare and fix one; material would cost about ½*d.*, this gives a prime cost of 7½*d.*

23 ft. run. Fir-framed bracketing for under eaves :—

This is worth a little more than that Oriel; the girth is so much less, and comparatively more. Add 1*d.*; ½*d.* if l

146 ft. run. Fir-framed bracketing for c

This I should price at the same as th the supers, say 4*d.* per foot super., or 7*d.* girth; labour lessening with increase of

No. 4. Extra for angle-brackets to the

The former angle-brackets were pric cluding profit. The price is of course for given in that detail. The cove would be entire surface, even of that part support brackets; say 7*d.* for these, as they are al

No. 1. Short length of rebated drip :—

A rebated fillet fixed across the gutte including a groove in the gutter-board. one, price it at 6*d.*, including profit quantity of them, they could be price profit.

No. 20 Fir-framed bridging-pieces :—

These are most probably to carry partiti run parallel with the joists, and are short pie about 13 in. long, notched into joists at worth about 6*d.* each, including profit.

PORCH GABLE.

13 ft. run. 7 in. by 3 in. fir, wrot all round, truss to gable front :—

Fir framed in roofs, as before .. .. ..
Add extra labour in trusses and hoisting

Including profit ..

ound; if no farther explanation quantity is small, provide as

	£	s.	d.
	0	0	9
turning..			
ball—joiner, 5 hours,	0	4	2
.. ..	0	0	4
.. ..			
	0	5	3
.. ..	0	0	6½
	0	5	9½

5 in. by 5 in. newel, with 4 polished mahogany ball as before

between this and the last siz 6*s*. 6*d*., including profit. Bot at, through want of description might show them to be more.

balusters, housed at both ends in, is governed by the patter to. The following is in de

	£	s.
.. ..	0	0
deal	0	0
ing	0	0
fixing, ½ hour at 10*d*. ..	0	0
	0	1
.. ..	0	0
say	0	1

3 in. Honduras mahogan ished handrail:—

depends on the moulding to I give a detail showing

No. 2. Ends of moulded nose treads and risers (winders) cut and mitred, &c., as last described:—

These are smaller than the last, and may be priced at 6*d.* each, including profit; where there is a continuous, or writhed string, instead of the newel, these ends are circular, and worth three times this.

No. 1. Quadrant end to moulded-nose tread and riser, the riser veneered and blocked:—

This requires part of the riser to be cut or sawn down to the thickness of a full ⅛ in., this thinner part being glued round a solid piece of deal cut to the required shape or blocked, the edge of tread being cut and moulded circular to the same shape. I should say from the reading of the item the step has been taken, and this is the "extra only;" the material would cost 6*d.* at most, and the labour beyond that already allowed on ordinary tread and riser, four or five hours of a joiner, preparing and fixing; this at 10*d.* per hour equals 4*s.* 2*d.*, and add 6*d.* for material, 4*s.* 8*d.*, and add 10 per cent., making 5*s.* 2*d.* in all, including profit.

No. 1. Semicircular end, 24 in. girth, to ditto, ditto:—

There is half as much more time to add for this; 7½ hours is the least to provide. This, at 10*d.* per hour, comes to 6*s.* 3*d.*, and add 1*s.* for material, and 9*d.* for profit, making 8*s.* in all.

No. 6. Moulded tops to 4 in. by 4 in. newels, with 3½ in. diameter turned Honduras mahogany, French-polished balls with pins turned on the solid:—

This is a speculative item, and really requires some farther explanation as to what kind of moulding is to be worked or planted on, and mitred round; if no farther explanation is to be had and the quantity is small, provide as follows:—

	£	s.	d.
3½ in. mahogany ball and turning..	0	0	9
Moulding top and fixing ball—joiner, 5 hours, at 10*d*.	0	4	2
Polishing	0	0	4
	0	5	3
Ten per cent. profit	0	0	6½
	0	5	9½

No 1. Moulded top to 5 in. by 5 in. newel, with 4 in. turned and French-polished mahogany ball as before:—

The difference of cost between this and the last size is not much. Price this at 6*s*. 6*d*., including profit. Both of these items are guessed at, through want of description. A reference to the drawings might show them to be worth much less, or probably more.

No. 66. 1¾ in. turned balusters, housed at both ends:—

The cost of these, again, is governed by the pattern they are required to be turned to. The following is in detail the probable value:—

	£	s.	d.
3 ft. of 2 in. by 2 in. deal	0	0	2
Sawing out and planing	0	0	2
Turning, say	0	0	3
Housing 2 ends and fixing, ½ hour at 10*d*. ..	0	0	5
	0	1	0
Ten per cent. profit, say	0	0	1½
	0	1	1½

40 ft. run. 3½ in. by 3 in. Honduras mahogany, moulded and French-polished handrail:—

The value of this depends on the moulding to be worked on it. Hereunder, I give a detail showing the cost, if worked of ordinary pattern and with the assistance of machinery.

	£	s.	d.
10½ in. super. of 1 in. mahogany, at 9*d.* ..	0	0	8
Sawing out and squaring up	0	0	3
Moulding by machinery, on 3 sides, joints, joint-screws, cleaning up, and fixing.. ..	0	0	8
French polishing.	0	0	3
	0	1	10
Ten per cent. profit	0	0	2¼
	0	2	0¼

Where the work has to be done by hand, I should price at 2*s.* 6*d.* per foot run, including profit.

8 ft. run. 3½ in. by 3 in. rail as last, but ramped :—

I should price this at twice the value of straight—say, 5*s.* per foot run, including profit, if prepared by hand.

No. 1. End of ditto, housed :—

I should price this at 4*d.*, including profit. A staircase-hand or joiner could do three in an hour.

No. 11. Ends of ditto, housed as last, but on rake :—

These are worth about 50 per cent. more than the last housings.

No. 1. Heading joint and hand-rail screw, and fixing :—

This is worth 1*s.* to 1*s.* 3*d.*, including profit. I do not think the item requires pricing, for I included the hand-rail screws and joints in rail, and one would not go far for 48 ft. run of rail if I had not; in large quantities price at 1*s.*, in small ones at 1*s.* 3*d.* each.

HONDURAS MAHOGANY AND FRENCH POLISHING.

21 ft super. 1 in. framed W.C. seats and risers, and deal bearers :—

The value of Honduras mahogany work is three times that of deal. The 1¼ in. deal seats and risers, earlier in this bill were priced at 8*d.* per foot super., including profit. Take ½*d.* off for difference of thickness, leaving 7½*d.* Three times this is 1*s.* 10½*d.* per foot super., including profit. This is a low price. I give hereunder a detail showing the cost, as I have done before :—

	£	*s.*	*d.*
1 in. mahogany, *P.C.*, including waste	0	0	9
Planing, framing, and fixing	0	0	7
Bearers and ditto ditto	0	0	2
Polishing	0	0	3½
	0	1	9½
Ten per cent. profit	0	0	2¼
	0	1	11¾

13 ft. super. 1 in. mitre clamped flaps, and beaded frames :—

The 1¼ in. deal flaps and frames were priced at 9¾*d.*, including profit, which was a good price ; subtract ½*d.* for lesser thickness, and multiply by three ; this gives 2*s.* 4*d.* per foot super, including profit.

7 ft. run. Labour to rounded edge :—

Price the "labour only," at twice that of the deal, say 1*d.* per foot run, including profit.

7 ft. run. Thumb moulding, tongued on, and including fitted ends :—

This moulding is worth 5*d.*, including profit, i. e. for working and fixing moulding, including material, 3*d.* working four fair ends, and fitting two, 1*d.*, and polishing 1*d.*; the ends that show (No. 4) when flap is lifted required to be planed fair and polished.

28 ft. run. 7 in. by ¾ in., beaded skirting :—

The following is the value of this in detail, which comes to about the same as multiplying a deal one at 3*d.* by 3 :—

	£	*s.*	*d.*
7 in. of ¾ in. mahogany	0	0	3½
Cutting out and planing	0	0	1¼
Fixing	0	0	1½
Polishing	0	0	2
	0	0	8¾
Ten per cent. profit	0	0	1
	0	0	9¾

No. 6. Tongued and mitred angles :—

Price these at 4*d.* each, including profit.

No. 6. Rounded ends :—

The labour in these is not much. A joiner should do 6 in an hour; this is a cost of 1½*d.* each—say, 2*d.* each, including profit. Workmen vary so much in the quantity as well as the quality of the work they do, that prime cost is a very difficult task to maintain. One workman will consider it an impossibility (and I believe it is to him) to carry out what another has done with ease, both as to time and finish.

No. 2. Seat holes, cut and dished :—

This should be priced at twice the price of deal.

No. 2. Beaded holes for handle :—

The last price (which is a good one) will be sufficient for this; the hole being much smaller, and only square-edged, will pay for turned bead, which is inserted and glued in after the hole is cut.

No. 2. **W.C. seats and risers, made to remove easily :—**

The simplest method of doing this, when the riser is plain, is to screw the riser to the bearers (and the flap frame and seat), with brass screws and cups, and where the riser is framed, the stiles can be screwed, and the panel made to slip up and down in grooves. Price at twice the item in deal if framed; once and half if only plain riser; the plain riser screwed is priced at 1*s.* 6*d.* in deal extra.

No. 1. 1¼ in. Honduras mahogany, framed top to bath, 7 ft. 3 in. by 3 ft., with one moulded edge and small quadrant corner and shaped perforation, and deal-framed bearers, and French-polishing :—

The labour in framing and fixing this is about equal in value to the 1 in. flaps and frames already priced: there is the ¼ in. of mahogany (for which add 3*d.* per foot) and the moulded edge; the net contents of this bath top, deducting the waste in hole, is 12 ft. 6 in. (about); price this at 2*s.* 6*d.* per foot super., and add 6*s.* 6*d.* for moulded edges, including the circular corners and external one. There is no skirting mentioned.

	£	*s.*	*d.*
12 ft. 6 in. super. of 1¼ in. top, at 2*s.* 6*d.*	1	10	0
Moulding edges (inside and out)	0	6	6
Bearers to top (they are taken to framing elsewhere)	0	3	0
Including profit	1	19	6

If this were cut out of a solid piece of wide mahogany, or say, glued up with one joint, the value would be :—

	£	*s.*	*d.*
21 ft. 9 in. 1¼ in. mahogany, at say, 1*s.*	1	1	9
Planing at 2*d.*	0	3	7½
Cross-tongueing, at 2*d.*	0	3	7½
Cutting hole and moulding inside and out	0	6	0
Fixing and bearers	0	6	0
French-polishing (say 14 ft., with edges) at 3½*d.*	0	4	1
	2	5	1
Ten per cent. profit	0	4	6
	2	9	7

In this last detail I have given no credit for the 1¼ in. mahogany cut out for hole, which would measure about 5 ft. 4 in. by 1 ft. 6 in. average : this is 8 ft. super., at 1*s.*, but it is an awkward-shaped piece.

IRONMONGERY OF THE BEST AND STRONGEST DESCRIPTION, INCLUDING SCREWS AND FIXING. ALL DOOR FURNITURE TO HAVE SPINDLES OF AN APPROVED PATENT.

No. 4 pairs. 2½ in. wrought-iron butts :—

The cost of these is 4*d.* per pair, to which add screws 1*d.* (the fixing is taken with the doors), and then add profit—say 1*d.*, the quantity being small—making 6*d.* per pair.

No. 14 pairs. 3 in. wrought-iron butts :—

These cost 5½*d.* per pair, to which add 1*d.* for screws, and then add profit.

No. 9 pairs. 3½ in. wrought-iron butts :—

These cost 7*d.* per pair; add 1¼*d.* for screws, and then add profit.

No. 23½ pairs. 4 in. wrought-iron butts :—

The cost of these is 9½*d.* per pair; add 1½*d.* for screws, and say 1½*d.* for profit—1*s.* 0½*d.* in all. All these prices for wrought butts are for "medium quality."

No. 10 pairs. 3 in. brass butts :—

The width of brass butts varies. They are made "light," "medium," and "strong," in all lengths, and of widths varying in 3 in. from ⅞ in. up to 3 or more inches; 1¼ in. wide is the size generally used for ordinary work, and they cost about 9*s.* per dozen pairs bought of the *makers.* Ironmongery is very dear if purchased of local ironmongers—i. e. after changing hands two or three times.

	£	s.	d.
3 in. by 1¼ in. medium butts, say	0	0	9
Iron screws	0	0	1¼
	0	0	10¼
Ten per cent. profit	0	0	1
	0	0	11¼

No. 2 pairs. 4 in. brass butts :—

These, of course, vary in size—i. e. width and price; a very good 4-in. butt may be bought for about 2*s.* 3*d.* per pair; add 1½*d.* for screws to this, and add 3*d.* for profit, making 2*s.* 7½*d.* in all.

No. 2 pairs. 2½ in. ditto, and fixing in mahogany :—

2½ in. brass butts cost 6*d.* per pair. Add 1*d.* for screws, ¾*d.* for profit, 7¾*d.* in all, or, say, 8*d.* It is not usual in these small items to use farthings to price out from, or to extend farthings in the money columns.

No. 3 pairs. 4 in. brass rising butts :—

Here, again, the width governs the price: rising butts are always made extra strong and heavy, whether in brass or iron. A medium quality pair will cost 7*s.* 6*d.*

	£	s.	d.
Cost of butts	0	7	6
Screws	0	0	2
Extra fixing	0	0	6
	0	8	2
Ten per cent. profit, say	0	0	10
	0	9	0

In this, as in all cases, I have provided only iron screws. If brass are specified, the extra must be added; a screw list (say Nettlefold and Chamberlain's) will give the difference —there is a large trade discount off the list. Butts take from 12 1¼-in. screws to a pair of 2½ in. butts to 20 1½-in. for strong wide butts.

1 pair. 15 in. cross garnet hinges:—

There are many prices for garnets; they vary from light to strong in strength. Fair medium garnets, 15 in. long, will cost 8*d.* per pair; add 1½*d.* screws (the fixing has been provided for in the Joiner's bill) and 1*d.* for profit, 10½*d.* in all.

No. 1. 4 in. neck bolt:—

The cost of this is 3*d.*

	£	s.	d.
Cost of bolt	0	0	3
Screws	0	0	0½
Fixing	0	0	2
	0	0	5½
Ten per cent. profit, say	0	0	0½
	0	0	6

Where there is but one, or a very few, price a little higher.

No. 7. 4 in. barrel bolts:—

The cost is as follows:—

	£	s.	d.
Cost of bolt	0	0	3
Screws	0	0	0½
Fixing	0	0	3
	0	0	6½
Ten per cent. profit	0	0	0¾
	0	0	7¼

No. 1. 8 in. barrel bolt:—

	£	s.	d.
Cost of bolt	0	0	6
Screws	0	0	1
Fixing	0	0	3
	0	0	10
Ten per cent. profit	0	0	1
	0	0	11

No. 1. 12 in. barrel bolt:—

	£	s.	d.
Cost of bolt	0	0	9
Screws	0	0	1½
Fixing	0	0	3½
	0	1	2
Ten per cent. profit	0	0	1½
	0	1	3½

No. 1. 8 in. brass barrel bolt:—

	£	s.	d.
Cost of bolt (best)	0	3	0
Screws	0	0	1
Fixing	0	0	3
	0	3	4
Ten per cent. profit	0	0	4
	0	3	8

The price of 3*s.* for this bolt is the cost of the best. Common are 1*s.* 6*d.* to 2*s.* each.

No. 1. 18 in. brass barrel bolt:—

	£	s.	d.
Cost of bolt	0	6	0
Screws	0	0	3
Fixing	0	0	6
	0	6	9
Ten per cent. profit	0	0	8
	0	7	5

I have provided 6*d.* for fixing this bolt, but they ought to be fixed for 4*d.* in any quantity. In each of these small items add a little to the bare price given, and in no case has *brass* screws been provided. It is usual to say, "including brass screws," or "gilt-headed screws," when they have been specified.

No. 1. 3 in. cupboard lock:—

Locks vary more than any other kind of ironmongery, and the quality should be very clearly stated; a cupboard lock can be bought at 2½*d.*, and a reference to the list of any patent-lock maker will show how high in price the best are; here, having no further description, a japanned cupboard lock is intended; this would cost 5*d.*

	£	*s.*	*d.*
Cost of lock	0	0	5
Screws, brass escutcheon and pins	0	0	2
Fixing..	0	0	9
	0	1	4
Ten per cent. profit	0	0	1¾
	0	1	5¾

Say 1*s.* 6*d.* for this, there being only one; the fixing could be done for 6*d.* in quantities, but there is a certain amount of running about to provide for, where there is only a few.

No. 1. 4 in. cupboard lock:—

To the last price add 3*d.* for extra cost of lock and profit; the labour and other items vary but little; this gives 1*s.* 9*d.*, including profit.

No. 7. 6 in. rim locks and brass furniture:—

This kind of lock varies as much as a cupboard lock; they are made as cheap as 10½*d.* each, including brass furniture with common spindle, escutcheon, roses, and screws, and with box staple complete. There is hardly a limit to the other extreme; they are made in best levers at very high prices. A good ordinary rim lock may be purchased with patent spindle as specified at 2*s.* 6*d.*

	£	*s.*	*d.*
Cost of lock	0	2	6
Fixing	0	0	9
2 screws to face-plate not provided, and brass pins	0	0	1
	0	3	4
Ten per cent. profit	0	0	4
	0	3	8

The prices given for fixing locks are fair and reasonable ones, and while they may be let for less, they will cost more if not looked after.

No. 1. 7 in. drawback lock:—

The cost of a fair ordinary lock of this description is 2*s.* 6*d.* the handle is secured to lock on one side, and there is, therefore, no patent spindle to provide for; the screws, escutcheon, and staple are included in the price.

	£	*s.*	*d.*
Cost of lock	0	2	6
Screws for face-plate and pins for escutcheon	0	0	1
Fixing	0	1	0
	0	3	7
Ten per cent. profit	0	0	4½
	0	3	11½

No. 15. 6 in. two-bolt mortise locks:—

These locks, which are of a superior kind, do not descend so low in the scale of prices, 1*s.* 6*d.* being about the lowest, and this not including furniture, the cost of which is—common brass as to rim locks, 6*d.* a set; black or white china knobs 11*d.*, in each case only common spindles are included; "two-bolt mortise" is one bolt to latch and turn with the handles, and the other to lock. The furniture is not to be included with these locks—it is taken further on. The cost of a good, fair mortise lock is 3*s.*

	£	*s.*	*d.*
Cost of lock	0	3	0
Fixing	0	2	0
Screws for face-plate and striking-plates	0	0	0½
	0	5	0½
Ten per cent. profit	0	0	6
	0	5	6½

No. 7. 7 in. two-bolt mortise locks:—

The additional value of this is the extra cost of the lock, 6*d.*, and profit on this amount. This price of 6*d.* is a close one.

No. 1. Thumb-latch :—

A very fair one may be purchased for 6*d.*

	£	*s.*	*d.*
Cost of latch	0	0	6
Screws, say	0	0	1
Fixing	0	0	9
	0	1	4
Ten per cent. profit	0	0	1½
	0	1	5½

This price of fixing, 9*d.*, is a good one, but they are seldom fixed for less unless "let" to the men.

No. 1. 6 in. mortise locking latch, with ebony knob on one side :—

In these better class of things there is not half the variation there is in the ordinary rim and mortise locks: there is really nothing cheap kept. There is not a very great demand for these and the merchants have their price, and there is not the competition among the makers of this class of goods. A latch of the above description will cost 4*s.* 6*d.*, with ebony knob complete.

	£	*s.*	*d.*
Cost of latch	0	4	6
Fixing, say	0	2	6
	0	7	0
Ten per cent. profit	0	0	8½
	0	7	8½

No. 1. 4 in. five-lever superior dead-lock for wine-cellar door :—

The wards and bolt of this lock should be of brass; a good lock of this description may be bought by the dozen for 10*s.* each. These small quantities are bad to form a basis on, and the question of quantity always governs the price (the price given would include two keys).

	£	s.	d.
Cost of lock and screws, &c.	0	10	0
Fixing	0	0	9
	0	10	9
Ten per cent. profit	0	1	1
	0	11	10

No. 5. Sets of brass furniture for mortise locks:—

Brass furniture, as I mentioned before, can be bought with common spindles as low as 6*d.* per set. A good set costs, with patent spindle, 2*s.*

	£	s.	d.
Cost of furniture	0	2	0
Fixing	0	0	3
	0	2	3
Ten per cent. profit	0	0	3
	0	2	6

No. 10. Sets of white-and-gold china furniture for mortise locks:—

The cost of these is 6*d.* per set in excess of the last, for the best—say 3*s.* 2*d.*, including profit.

No. 7. Sets of furniture, *P.C.* 7*s.* per set, for mortise locks:—

It is a fairer way to the builder to give a provisional price; there can be no question of quality afterwards. Some architects put their work up to competition, which is always of the keenest, and sometimes publicly advertised, and still expect everything to be of the best.

	£	s.	d.
Provided amount	0	7	0
Fixing, say	0	0	4
	0	7	4
Ten per cent. profit	0	0	9
	0	8	1

No. 14. Brass spring roller sash-fastenings :—

The cost of a good ordinary sash-fastening is 8*d.*

	£	*s.*	*d.*
Fastening, *P.C.*	0	0	8
Fixing	0	0	3
Screws	0	0	0½
	0	0	11½
Ten per cent. profit	0	0	1¼
	0	1	0¾

No 10. Strong brass secure sash-fastenings, of improved patent :—

Here again is an indefinite description. If the work is wanted, all prices must be kept "close," and yet a proper provision made for such things as this; a good patent secure fastener (there are a score selling by this name) may be bought for 1*s.* 2*d.*

	£	*s.*	*d.*
Cost of fastener	0	1	2
Screws	0	0	0½
Fixing	0	0	3
	0	1	5½
Ten per cent. profit	0	0	1¾
	0	1	7¼

No. 16. Brass casement fasteners :—

The same remark applies here, as to the want of a *P.C.* or provisional price; the cost of a fair ordinary one is 1*s.* 3*d.* If the casements are light, a good strong plain fastening may be bought for 10*d.* that will suit.

	£	*s.*	*d.*
Cost of fastening	0	1	3
Screws	0	0	0½
Fixing	0	0	4
	0	1	7½
Ten per cent. profit	0	0	2
	0	1	9½

No. 11. Brass casement stay-bars :—

A good fair casement-stay may be bought for 1*s.* 6*d.*

	£	*s.*	*d.*
Cost of stay-bar	0	1	6
Screws	0	0	0½
Fixing	0	0	4
	0	1	10½
Ten per cent. profit	0	0	2½
	0	2	1

No. 26. Sash-lifts, *P.C.* 10*d.* each :—

	£	*s.*	*d.*
Cost of lift	0	0	10
Screws	0	0	0½
Fixing	0	0	4
	0	1	2½
Ten per cent. profit	0	0	1½
	0	1	4

The price of 4*d.*, fixing is for small sunk lifts, the plates not let in; add 2*d.* if they are to be let in flush; if the lift is only a hook one, or a jointed hook one, they can be fixed for 2*d.* each.

No. 13. Brass flush-plate eyes, for top sashes :—

These cost about 4*d.* each; add 4*d.* fixing and screws, and 1*d.* for profit, making 9*d.* in all.

No. 2. Brass knob cupboard turns :—

The best of these are common. Say 4*d.* for the cost of the turnbuckle; add 3*d.* for fixing, and, say, 1*d.* for profit, making 8*d.* in all.

No. 1. 87 in. brass espagnolette casement fastening :—

	£	*s.*	*d.*
Cost of bolt	1	10	0
Fixing, including screws, say	0	3	0
	1	13	0
Ten per cent. profit	0	3	4
	1	16	4

No. 1. Archibald Smith's (Leicester-square) 40 in. brass water-bar, for French casement :—

The cost of this is 6*d.* per inch net.

	£	s.	d.
40-in. run of bar, at 6*d.*	1	0	0
Fixing, including screws, say	0	1	6
	1	1	6
Ten per cent. profit	0	2	2
	1	3	8

No. 12. Japanned casement stay-bars :—

The prices of these vary very much; a good one, of malleable iron, can be bought at 10*d.*

	£	s.	d.
Cost of bar	0	0	10
Screws	0	0	0½
Fixing	0	0	4
	0	1	2½
Ten per cent.	0	0	1½
	0	1	4

No. 1. Brass bronzed door-knob, *P.C.* 4*s.* :—

	£	s.	d.
Cost of knob, including bolts	0	4	0
Fixing	0	0	4
	0	4	4
Ten per cent. profit	0	0	5
	0	4	9

No. 1. Wrought-iron quadrant, with brass pulleys, lines, and pins, for opening skylight :—

	£	s.	d.
Cost of quadrant	0	1	3
Two pulleys	0	0	10
One brass eye	0	0	1
One brass cleat hook	0	0	7
8 yards No. 2 line	0	0	4
Screws	0	0	2
Fixing—say 2½ hours at 9*d.*	0	1	10½
	0	5	1½
Ten per cent. profit	0	0	6½
	0	5	8

No. 1. Turned ash pole, 7 ft. long, with brass crook for opening top sash :—

	£	s.	d.
Cost of brass crook	0	0	9
7 ft. ash-turned pole	0	1	3
Fixing crook and screws	0	0	4
	0	2	4
Ten per cent. profit..	0	0	3
	0	2	7

BILL No. 8.

SMITH AND BELLHANGER.

CAST IRON.

135 ft. run. 3 in. diameter rainwater pipe and fixing :—

The cost of iron fluctuates a good deal, and an estimator requires to keep himself well posted in the prices of the day; and if he should succeed in obtaining the work, it would be wise to place the orders as soon as possible, if the markets are low; the cost of 3-in. pipe is 1*s.* per yard, say 4*d.* per foot.

	£	s.	d.
Cost of 3-in. pipe	0	0	4
Loss on sockets mostly measured in by makers	0	0	0¼
Fixing, including pipe nails	0	0	2¼
	0	0	6½
Ten per cent. profit..	0	0	0¾
	0	0	7¼

No. 2. Swan-neck bends, 6 in. projection :—

The cost of these beyond that of the pipe, for it is "extra only," is 10*d.* each.

	£	s.	d.
Cost of bend extra over pipe	0	1	0
Extra on fixing, say..	0	0	3
	0	1	3
Ten per cent. profit..	0	0	1½
	0	1	4½

No. 2. Swan-neck bends, 15 in. projection:—

The same remark applies to this as to the last item: it is "extra only"; the cost is 2*s.* 6*d.* more than the pipe measured.

	£	*s.*	*d.*
Cost of bend	0	2	6
Extra labour and fixing	0	0	4
	0	2	10
Ten per cent. profit	0	0	3½
	0	3	1½

No. 3. Swan-neck bends, 24 in. projection:—

	£	*s.*	*d.*
Extra cost of bend over pipe	0	4	0
Extra labour, &c.	0	0	6
	0	4	6
Ten per cent. profit	0	0	5
	0	4	11

No. 9. Shoes and fixing:—

These, again, are extra only, but they are short; they cost 7*d.* extra.

	£	*s.*	*d.*
Cost of shoe (extra only)	0	0	7
Extra cost of fixing	0	0	2
	0	0	9
Ten per cent. profit	0	0	1
	0	0	10

No. 1. Head and fixing:—

These vary very much in design and size; a fair ordinary head costs 2*s.* 6*d.*

	£	*s.*	*d.*
Cost of head	0	2	6
Fixing and nails	0	0	4
	0	2	10
Ten per cent. profit	0	0	3½
	0	3	1½

In this case the pipe is no doubt measured—i. e. taken up to the gutter, but it would be unwise to allow of any reduction for it.

36 ft. run. 4 in. by 3 in. moulded eaves gutter, jointed and bolted in red lead cement, and fixed with screws:—

The cost of gutters varies with the design, and they are cast of more than one thickness; a good fair 4 in. by 3 in. moulded gutter would cost 3½*d.* to 4*d.*, delivered on to the works.

	£	*s.*	*d.*
Cost of gutter per foot, say	0	0	4
Loss in laps, say	0	0	0½
Fixing	0	0	2½
Red lead cement, bolts, and screws	0	0	1
	0	0	8
Ten per cent. profit, say	0	0	1
	0	0	9

No. 2. Angles to 4 in. by 3 in. gutters:—

The extra cost of these beyond the cost of gutter is about 1*s.*; an angle measures one foot each way, so that from the cost of the angle you have to deduct the cost of two feet of gutter.

	£	*s.*	*d.*
Cost of angle (extra only)	0	1	0
Extra fixing, bolts, &c.	0	0	6
	0	1	6
Ten per cent. profit, say	0	0	2
	0	1	8

No. 2. Outlet to ditto:—

An outlet measures about one foot in length, and allowing for socket or flange about 9 in.—the cost will vary a little with the size of rainwater pipe the outlet has to fit—the extra cost of one to fit 3 in. pipe would be about 1*s.*

	£	*s.*	*d.*
Cost of outlet	0	1	0
Fixing, extra bolts, &c.	0	0	6
	0	1	6
Ten per cent. profit, say	0	0	2
	0	1	8

No. 4. Stopped ends to 4 in. by 3 in. gutter:—

These cost about 3½*d.* each, and are not extra only.

	£	*s.*	*d.*
Cost of stopped end	0	0	3½
Fixing, red lead, putty, bolts	0	0	3
	0	0	6½
Ten per cent. profit, say	0	0	0¾
	0	0	7¼

279 ft. run. 5 in. half-round eaves gutter jointed and bolted in red lead cement, and fixed to fascia with strong wrought-iron brackets:—

The cost of this gutter is 7*d.* per yard, say, with loss on flanges, 7½*d.* per yard, or 2½*d.* per foot.

	£	*s.*	*d.*
Cost of gutter	0	0	2½
2 brackets to 6 ft., say per foot	0	0	1½
Gutter bolts, red lead cement	0	0	0¾
Fixing	0	0	2½
	0	0	7¼
Ten per cent. profit	0	0	0¾
	0	0	8

The fixing may be done for a little less than 2½*d.*

No. 7. Angles to 5 in. half-round gutter :—

These angles, like the last, are "extra only," the cost beyond 2 ft. of gutter is about 6*d.*

	£	s.	d.
Cost of angle	0	0	6
Extra fixing, bolts, &c.	0	0	6
	0	1	0
Ten per cent., say	0	0	1½
	0	1	1½

No. 4. Octagonal angles to ditto :—

These are extra only over the cost of gutter, and if regular or ordinary stock angles (for octagonal angles are kept in stock), will cost 2*s.* in excess of 2 ft. of gutter.

	£	s.	d.
Cost of angle	0	2	0
Fixing, bolts, &c., as before	0	0	6
	0	2	6
Ten per cent. profit, say	0	0	3
	0	2	9

If the angle is one you cannot obtain from stock, or they have to be made "special," a mould has to be made for them, fitted to the angle of brickwork or fascia of bay window, and the cost would vary from 2 to 3 times the cost of the stock one, varying with the number required.

No. 7. Outlets to ditto :—

	£	s.	d.
Cost of outlet, beyond gutter	0	0	6
Fixing, &c.	0	0	3
	0	0	9
Ten per cent. profit	0	0	1
	0	0	10

No. 4. Stop ends to ditto:—

The cost of these (not *extra only*) is about 2½*d.* to 3*d.* each.

	£	s.	d.
Cost of stopped end..	0	0	3
Fixing, &c.	0	0	3
	0	0	6
Ten per cent. profit..	0	0	0¾
	0	0	6¾

No. 1. Hayward's 12 in. diameter illuminating coal-plate and frame, with staple and chain fastening and fixing:—

The cost of the plate with chain complete is 6*s.* 6*d.*, and the only fixing is driving the staple, which has to be provided beyond the 6*s.* 6*d.*; the hole in paving is taken in Mason.

	£	s.	d.
Cost of plate	0	6	6
Staple	0	0	1
Driving staple, &c., say..	0	0	2
	0	6	9
Ten per cent. profit..	0	0	8¼
	0	7	5¼

This does not provide a padlock.

WROUGHT IRON.

2 cwt. 7 lb. in chimney bars and building in:—

These are usually made from common English bar iron, the cost of which varies almost daily; put it at 8s. per cwt. or £7 10*s.* by the ton.

	£	s.	d.
Cost of iron per cwt.	0	8	0
Cost of labour on them, say	0	6	0
Fixing—costs but little, say	0	1	0
	0	15	0
Ten per cent. profit..	0	1	6
	0	16	6

Only 1*s.* is provided for "fixing," but it is really for cartage and carrying up the building, &c., as I do not consider it worth an extra beyond the price included for the labour in brickwork.

3 cwt. 2 qrs. in framed guard bars and fixing :—

These are made from a better quality of iron, which costs from 9*s.* 6*d.* to 10*s.* per cwt., the lesser amount if bought by the ton; it is usual where there is steam to have a steam drill, which is very useful for this kind of work and very economical.

	£	s.	d.
Cost of iron per cwt.	0	10	0
Labour, including fixing	0	11	0
	1	1	0
Ten per cent. profit	0	2	2
	1	3	2

If there is no steam drill, add 2*s.* 6*d.* per cwt.; the price here given I consider a low one, and if the upright bars are to be shouldered into the horizontal bars and riveted, add 4*s.* per cwt.

No. 36. Ends of ¾ in. bar pointed :—

These are worth, with profit, 3½*d.* each; it would take a smith about ten minutes to heat, shape, and file one—there is his mate to provide for, fire, files, &c.; a good builder's smith is paid 9*d.*, and his mate 6*d.* per hour—about 3*d.* would, I think, cover the cost of fire and files, making 1*s.* 6*d.* per hour *all.*

1 qr. 7 lb. in framed balusters and fixing :—

These are worth about the same as the guard bars, 23*s.* 2*d.*, including profit, and add the 4*s.* for the shouldered and riveted ends, making 27*s.* 2*d.* in all—there is only the handrail, instead of two horizontal bars, but there is in consequence more labour in fixing.

9 ft. run. 1½ in. half-round hand-rail :—

This weighs about 2 lb. to the foot, and should be priced at the same as the balusters. The iron costs more, but I have averaged the cost; 27*s.* 2*d.* per cwt. is equal to 3*d.*

per pound; 2 lb. at this will give 6*d.* per foot run, including profit; there is no ramp or scroll taken, so I presume there is none. Where they are taken they must be priced beyond the price given per cwt.

No. 10. ⅝ in. diameter bolts 12 in. long, with heads, nuts, and washers and fixing by carpenter:—

These may be bought in quantities from the provincial bolt makers, and cost about 22*s.* per cwt., including heads, nuts, and washers, or bolt ends may also be bought and lengthened to any length required by welding on a piece.

	£	*s.*	*d.*
Cost of ⅝ by 12 in. bolt, say	0	0	5
Fixing..	0	0	4
	0	0	9
Ten per cent. profit	0	0	1
	0	0	10

No. 4. ¾ in. bolts 18 in. long, with heads, nuts, and washers, and fixing by carpenter:—

	£	*s.*	*d.*
Cost of bolt, say	0	0	8
Fixing	0	0	5
	0	1	1
Ten per cent. profit	0	0	1½
	0	1	2½

I have in each case allowed a little more for the bolts than at the rate of 22*s.* given by me.

No. 1. Framed grating, 2 ft. 3 in. by 1 ft. 6 in., weight about 56 lb., and fixing:—

There is only one to price; if there were any quantity some better description would be required, the size of bars, distance apart, &c.; an ordinary grating will cost 3½*d.* to 4*d.* *per pound, say,* 4½*d.* with profit.

BELLHANGER.

No. 16. 14 oz. bells of varied tone, with No. 22 pulls, hung with No. 16 stretched copper wire in concealed tubing, with brass cranks, steel springs, and pendulum, &c., complete in best manner:—

These are in many cases let to bellhangers at so much a pull complete, at prices varying from 7*s*. 6*d*. to 15*s*., including the pulls that follow. Good bells can be hung, excepting the pulls, but including everything else, at 8*s*. to 9*s*. a pull prime cost, say, 8*s*. 6*d*., and add 10 per cent., making 9*s*. 4*d*. including profit.

Provide and fix the following fittings to the foregoing bells:—

No. 5. Rose purchase crank pulls:—

The cost of these beyond the sum I gave for bells, &c., is 3*s*. 6*d*., fixed complete, and add profit to this.

No. 1. Brass sunk slide pull:—

Price this at the same; there is very little variation in cost.

No. 8. Lever pulls, *P.C.* 4*s*. each:—

There is a discount to builders off pulls, varying from 10 to 25 per cent., say 10 per cent. off 4*s*. = 5*d*. about), leaving 3*s*. 7*d*. as the cost; add 6*d*. for fixing, the crank is included in the price given for bell, &c., and the block is provided in an item farther on in this Bill; these *P.C.* provisions should be done away with, and a sum provided, including the builder's profit. The builder should produce the receipted account, and if the architect has reason to doubt its genuineness he can obtain a trade list and learn the trade discount if he wishes. These remarks apply to any provisions in any trade.

	£	s.	d.
Net cost of lever pull	0	3	7
Fixing	0	0	6
	0	4	1
Ten per cent. profit	0	0	5
	0	4	6

The making good to plastering is included earlier—the estimator can take the 10 per cent. off the provided *P.C.* of pull or not, as he chooses. The gross price is the only price in the factors' books.

No. 6. Lever pulls, *P.C.* 7*s.* 6*d.* each:—

Take off 10 per cent. from 7*s.* 6*d.*, leaving 6*s.* 9*d.*, and add the same items as last.

	£	s.	d.
Net cost of lever pull	0	6	9
Fixing	0	0	6
	0	7	3
Ten per cent. profit, say..	0	0	9
	0	8	0

No. 2. Brass bronze sunk pulls, *P.C.* 7*s.* 6*d.*, and fixing to brickwork:—

In this item the cost of fixing is more, and if they are fixed to outside piers—i. e., those at garden entrance of house, a piece of gas barrel will be required for the wire to run in underground.

	£	s.	d.
Net cost of sunk pull	0	6	9
Iron pipe (say 23 ft. ⅜ in.)	0	3	6
Fixing	0	2	6
	0	12	9
Ten per cent. profit	0	1	3
	0	14	0

Allow for cutting away for, and attending on bellhanger, and making good in all trades, and including all necessary bell-boards, cranks, boxes, bearers, &c., and fixing floor-boards with brass screws and cups where required:—

The "attend on and make good" is included in the item in Bill 1; the cranks in item 1 of this Bill.

	£	s.	d.
Bell-board, 10 ft. by 11 in. by 1¼ in. planed one side and beaded	0	4	7
2 ends return beaded	0	0	8
4 oils painting to face and edges	0	1	0
24 blocks let into walls and wedged to secure pulls	0	8	0
Fixing floor boards for 24 pulls with brass screws, &c., say	0	8	0
	1	2	3
Ten per cent. profit	0	2	3
	1	4	6

Since the introduction of electric and pneumatic bells, the old-fashioned wires and cranks are fast disappearing; the electric bells are the best, if only for the neatness of the furniture, which is so much smaller; *best* electric bells cost 20*s.* a pull fixed complete, exclusive of profit; they are fixed as low as 13*s.* Pneumatic bells are about the same in cost.

BILL No. 9.

PLASTERER.

The lime to be run into putty, the sand to be clean and sharp.

608 yards super. Twice whiten ceilings:—

This is worth 2*d.* per yard super., including profit; it is nearly always done by painters, although taken and inserted in the plasterer's bill by the surveyor; this price of 2*d.* is a low one, for the labour is worth 1½*d.* out of it, and the material ¼*d.* at the least—the labour a little less, the material a little more. This price is for plain colours only, and any other, to walls, &c., would have to be added extra; white, grey, and buff are common or plain colours.

652 yards super. Render, float, and set to walls:—

The cost of material averages 1*d.* per yard per coat, and the cost of labour 2*d.*—this latter is a good fair price; it is done as low as 5½*d.* the three coats. The price of material is low, and at Hampstead 1*d.* on the three coats must be added for extra cartage.

	£	*s.*	*d.*
Material, 3 coats	0	0	3
Labour	0	0	6
Extra cartage	0	0	1
	0	0	10
Ten per cent. profit	0	0	1
	0	0	11

53 ft. super. Render, float, and set to walls in narrow widths:—

The labour on narrow widths is about twice the cost of ordinary work; there is no increase for cost of material.

	£	s.	d.
Cost of R.F.S. per yard super	0	0	10
Extra on labour	0	0	6
	0	1	4
Ten per cent.	0	0	1½
	0	1	5½

This is, roughly speaking, 2*d.* per foot super., dividing the 1*s.* 5½*d.* by 9 ft. to the yard super.

9 ft. super. Render, float, and set to walls in narrow widths to circular soffits:—

To the last item add 50 per cent. for circular overstraight, making 3*d.*, including profit. This gives about three times the cost of labour to straight; the material is the same, as the net measurement is given in both cases.

36 yards super., lath, plaster, and set to ceilings:—

To the cost of render, float, and set to walls add lathing *P.C.* 5*d.* per yard, and additional labour to ceilings, both for lathing and covering, 1*d.*; the price of 5*d.* for lathing being for single laths in upright work; if the lathing is let, it can be let labour, or labour and material, at an all-round price.

	£	s.	d.
Render, float, and set	0	0	10
Lathing	0	0	5
Extra on ceilings, as stated	0	0	1
	0	1	4
Ten per cent. profit	0	0	1¾
	0	1	5¾

From this price of 1*s.* 5¾*d.*, calculated for render, float, and set, or plaster, float, and set (the same thing), deduct one coat, but only at 1½*d.* or 1¾*d.*, for there is not so much difference in two and three coats in labour; if two coats only are done, the first coat has to be floated and scratched to take the setting coat, say 1*s.* 4*d.*, including profit, for this item.

529 yards super. Lath, plaster, float, and set partitions:—

This item costs about ½*d.* a yard less than the one of ceilings, and is made up thus:—

	£	*s.*	*d.*
R.F.S.	0	0	10
Lathing	0	0	5
Extra labour, R.F.S. on lath	0	0	0½
	0	1	3½
Ten per cent. profit	0	0	1½
	0	1	5

165 ft. super. Lath, plaster, float, and set in narrow widths:—

To the last cost add 6½*d.*, being the cost of labour, and thus giving twice the cost of ordinary work, as in item "Render, float, and set in narrow widths." This gives a cost of 1*s.* 10*d.* per yard; price at 2½*d.* per foot super, including profit.

434 yards super. Lath, plaster, float, and set to ceilings:—

The value of this I gave in a detail under the item "Lath, plaster, and set"—i. e., 1*s.* 5¾*d.* per yard super., including profit.

138 yards super. Lath, plaster, float, and set to sloping ceilings:—

There is extra labour to allow for on this item, but only ½*d.* or ¾*d.* in value, including profit, at ¾*d.*, making 1*s.* 6½*d.* per yard; there is an angle to work extra where the sloping ceiling meets the level one; there is little beyond this.

16 yards. Lath, plaster, float, and set to soffit of stairs, part flueing:—

The labour on the parts that are twisted flueing or wreathed is worth five times that of the straight, and should, I think, be taken separate; the lather, where the lathing is sublet, measures it in with the other work, but if done daywork it is worth much more. The principal extra is in the labour in laying on the plastering, and more especially in the setting coat. Turning to the Joiner, I find the winders are one-tenth of the quantity of flyers or straight steps taken there, which variation would be near enough to reckon from.

	£	s.	d.
Say 9 yards of ceiling work sloping, at 1*s.* 6½*d.*	0	13	10½
Say 1 ditto..	0	4	3
10)	0	18	1½
	0	1	9¾

This last item of 4*s.* 3*d.* was arrived at in the following manner:—

	£	s.	d.
Cost of lathing	0	0	5
Five times cost of ordinary labour	0	3	1½
Material	0	0	4
	0	3	10½
Ten per cent. profit	0	0	4½
	0	4	3

Price at an even sum of 1*s.* 10*d.*; this will cover any loss on lath, and fraction of profit to make 10 per cent. in the above detail.

106 ft. run. Quirk in plaster:—

This is mostly to soffits of stairs next bead of outer string, or round trapdoors, and can be done at 1*d.*, including profit, and at ¾*d.* in large quantities.

No. 6. Mitres to splay, average 11 in. wide :—

This is worth about one foot run of the work, i.e. *2d.*

318 ft. super. Fine plaster moulded cornice :—

This is a difficult item to give a cost of that will meet all cases, for so much depends on the pattern of the cornice and on labour, which varies enormously. The labour is worth from *3d.* to *5d.*, the cost of plaster (usually having some putty mixed with it, to keep it from setting too quickly and make it work free) varies from *2d.* to *3d.*

	£	s.	d.
Labour, say	0	0	4
Material (outside value)	0	0	3
	0	0	7
Ten per cent. profit	0	0	0¾
	0	0	7¾

335 ft. run. Fine plaster moulded cornice, 9 in. girt :—

Take three-fourths of the last item, and thus price at an average price large and small, by the superficial contents; put this at *6d.*

80 ft. super. Fine plaster moulded cornice, 12 in. girt :—

Price this at the same rate as the first item of plaster cornice.

212 ft. run. Plaster enrichment 3 in. wide :—

The cost of this is about *1d.* to *1¼d.* per inch in width, varying with the pattern; the price would include fixing; this gives *3¾d.* per foot run for 3 in. wide, and add profit to this.

No. 24. Mitres to enrichment :—

Price these at one foot of the enrichment mitred.

No. 65. Mitres to moulded cornices, average 13 in. girt to ed

Price these at 13 in. super. of plaster cornice, labour an material:—

No. 4. Stopped ends to cornice, average 10½ in. girt:—

A stopped end is worth half the price of a mitre to the same cornice; therefore, price this at half a mitre to 10½ in. of cornice. The price per foot super. was given at 7¾*d.*, say 8*d.* for ease in calculating these parts; 10½ in. at 8*d*=7*d.*, price a mitre, therefore, on 10½ in. at 7*d.*, and a stopped end at 3½*d.*

No. 3. Centre flowers, *P.C.* 40*s.* each, and add fixing:—

This is one of those items the cost of which depends on whether the trade discount is to come off or not, it varies from 20 to 25 per cent. I will assume it is not, and the estimator can take it off if he finds by experience he may safely do so.

	£	s.	d.
Cost of flower	2	0	0
Fixing, and making good ceiling round it afterwards	0	5	0
	2	5	0
Ten per cent. profit	0	4	6
	2	9	6

This price of fixing would cover fixing in plaster or papier-maché. The latter costs less than the plaster, and there need be no making good, so the estimator could, if he finds they are to be in papier-maché, put "fixing" at half the price given—i. e. 2*s.* 6*d.*

3 ft. super. Render, float, and finish bastard stucco, each coat gauged with one-sixth part of Portland cement, in small panel:—

The quantity here is so very small that it is worth twice much as ordinary work ; take the render, float, and set in e earlier part of this bill as a basis to work from.

	£	s.	d.
Cost of R.F.S.	0	0	10
Cost of cement, say	0	0	3
Extra labour to stucco, including gauging ..	0	0	3
Extra for small sizes and being in *panels* ..	0	0	3
	0	1	7
Ten per cent. profit	0	0	2
	0	1	9

This gives a little over 2¼*d.* per foot super., and should be at least doubled, as there is only *one panel* to do.

11 ft. super. Lath, plaster, float, and set and finish as last :—

Here there is more than in the previous item, and I should price it at 4*d.* per foot, this price including profit and extra cost of lathing.

32 ft. super. Lath, plaster, float, and set, &c., as last, but to coved corbel to octagon oriel :—

Here, the quantity is larger, and the first of these items may be taken as a basis, leaving out the 3*d.* for being in panels.

	£	s.	d.
Cost per yard super...	0	1	4
Add 50 per cent. for being circular work ..	0	0	8
Add for lathing	0	0	5
	0	2	5
Ten per cent. profit	0	0	3
9)	0	2	8
	0	0	3½

No. 8. Mitres to ditto, average 45 in. girt :—

This is circular arris, and worth three times straight for labour only—i. e., 3*d.* per foot run, including profit ; this is a good price, and where there is a quantity may be reduced.

23 ft. run. Lath, plaster, float, and finish bastard stucco to cove 12 in. girt under eaves; each coat to be gauged with cement as before, and in the same proportion:—

The girt is small for this kind of thing, and the item should be priced a little higher, say 4*d.* per foot run, including profit.

146 ft. run. Lath, plaster, float, and finish bastard stucco, all as last, but 24 in. girt:—

Take R.F.S. stucco at 1*s.* 4*d.*, add 8*d.* for circular and 5*d.* for lathing, and then 10 per cent. making 2*s.* 8*d.* per yard, super., or 7*d.* for a foot run, 24 in. wide.

No. 4. Mitres to cove, 24 in. girt:—

Price this item at a foot run of the last item, 7*d.*

No. 8. Stopped ends to ditto:—

This I should price at the same rate as the other stopped ends—i. e., half that of a mitre, 3½*d.*, including profit.

169 ft. run. Quirk in stucco:—

It will be near enough to price this at the same as the former "Quirk."

5 ft. run. Arris and narrow return in stucco:—

Narrow return is a vague description; if there were a large quantity, such an item should be closely priced. It may be only the return of its own thickness, or the edges in the panel. Price the arris at 1*d.*, and the narrow return at 1*d.* in ordinary quantities; in such a small item as this, add another 1*d.*, making 3*d.*, including profit.

PORTLAND CEMENT.

4 ft. run. Moulding 9 in. girt:—

In large quantities moulding may be priced—labour, material, and profit—at 1*d.* per inch for middling size mouldings; increasing for mouldings that are small in size or quantity. The Plasterer's bill has a great number of small items in it, and this is a *very* small one; a mould must be made especially for it, and a rule or ground tacked up to run on. This mould and rule fixing will cost about 2*s.* to 2*s.* 6*d.*, say 7½*d.* per foot with profit, and then add 9*d.* per foot for moulding, making 1*s.* 4½*d.* per foot run; it is, of course, not usual to go into these working details in pricing, but until you are thoroughly versed in all you have to take into consideration in valuing an item it will be necessary for you to go into them; experience will teach you to see at a glance what is required and add for it.

No. 4. Returned, mitred, and stopped ends to 9 in. moulding:—

There is material as well as labour to allow for here.

	£	*s.*	*d.*
Say one foot of 9 in. cornice for the mitre ..	0	0	9
Half this for stopped end..	0	0	4½
Say 6 in. of moulding (the part on returned end)..	0	0	4½
Including profit	0	1	6

74 ft. run. Weathering to chimney-cap, 15 in. girt, circular:—

Portland cement, plain face, is worth 1*s.* 6*d.* per yard super. (inclusive of profit); this is 2*d.* per foot super. (This is for large quantities only, and not jointed to imitate stone, and is considered a low price.) Circular would be 50 per cent. on this; this is at the very top of the building too.

	£	s.	d.
15 in. at 3*d.* per foot super.	0	0	3¾
Add 2 arrises	0	0	2
Including profit	0	0	5¾

No. 20. Mitres to weathering:—

Take 15 in. of circular arris, at 3*d.*, as before.

KEEN'S CEMENT.

278 ft. run. Angle and narrow return:—

Keene's cement work is worth about half as much again as Portland cement, work, labour, and material; price this at 50 per cent. on the former arris and narrow return, which I priced the same as if in Portland cement entirely: 3*d.*, including profit.

4 ft. run. Angle and narrow return, circular:—

Price at 50 per cent. on the last item; it is worth really a little more.

112 ft. run. Chamfer 3 in. wide and narrow return:—

	£	s.	d.
Two arrises	0	0	2
Return in Keene's and small amount of plain face	0	0	1½
Including profit	0	0	3½

As there is a fair quantity of this, I have put the labour low; the plain face and return are worked in working the arrises.

15 ft. run. Chamfer 3 in. wide and narrow return, circular:—

The price I gave for the 3-in. chamfer was 3½*d.*, including profit, add 50 per cent. to this for the "circular"—say 5*d.*; a chamfer includes narrow returns to both the arrises.

No. 8. Splayed stops to ditto :—

A mitre on this chamfer would be priced at one foot of straight—i. e., 3½*d.*; price this stop at the same, the labour is about equal; there is, if anything, a little more to this.

No. 10. Mitres to ditto :—

Price this at one foot of the chamfer, 3½*d.*, including profit.

6 ft. run. Soffit 5 in, wide, on lath with staff-beaded angle :—

Price this soffit at 2*d.*, including lathing, and add 3*d.* for the staff-bead; 5*d.*, in all, including profit.

21 ft. run. Reveal 6 in. wide with staff-beaded angle :—

This I should price at the same rate as the last item.

No. 2. Mitres :—

Price these at one foot run of reveal and bead; 5*d.*, including profit.

20 ft. run. Rounded angle, 4 in. girt :—

Take one and a half of arris as the value of the angle, and add 1½*d.* for two narrow returns, making 3*d.*, including profit.

Make good all cracks, blisters, &c. :—

This was allowed for in the general item of "making good;" care should be taken, if the estimator wants to obtain the work, to avoid pricing an item twice—i. e. including it in a general one, and then attaching a price to any part of this general item that may be taken separately elsewhere. I do not suggest that this item should not appear in the quantities, but only that in pricing the general one I have included it. The question of blisters often becomes a serious one; the lime should be run and no coarse stuff put on until it has *stood some time.* Many working plasterers will tell you that if you run the lime you can use the lime and hair, or coarse stuff, at once, without getting blisters, but they are wrong; the setting coat also requires skilful labour to make a good job of, the floating being well scratched to key to, the sand being well washed before being mixed with the putty, and used in sufficient quantity to avoid *fine* cracks.

BILL No. 10.

PLUMBER AND ZINC WORKER.

37 cwt. 0 qr. 14 lb. in milled lead and laying in gutters and flashings, &c.:—

The present price of sheet lead is £15 per ton, or 15*s.* per cwt., delivered at Hampstead. Sheet lead varies very much; it is generally sold at about £1 per ton beyond the price quoted in the daily papers for "pig lead;" lead pipe at 10*s.* per ton beyond this, and soil-pipe a further sum of £2 10*s.* per ton.

	£	*s.*	*d.*
Sheet lead per cwt.	0	15	0
Allow for loss on cuttings, sold at 2*s.* to 2*s.* 6*d.* per cwt. less than cost, and 4 lb. deducted for "tare"	0	0	6
Labour and solder laying	0	4	0
	0	19	6
Ten per cent. profit	0	2	0
	1	1	6

The labour and solder in large plain work may be done *as low as* 3*s.* 6*d.* to 3*s.* 9*d.* per cwt.

2 cwt. 1 qr. in milled lead and laying in stepped flashings:—

Price this item at the same as the last; there is more labour than to some part of the other, but there is the lead saved from the vandyking on upper edge that quite compensates for it; the flashings are usually measured parallel by surveyors.

3 cwt. 1 qr. in milled lead and laying in safes and linings to sinks:—

To the first item add 2*s.* 6*d.* per cwt. for extra labour making £1 4*s.* per cwt., including profit.

3 ft. run. Soldered angle:—

There is very little of this; the value of the item is 6*d.* in large quantities, and in small half as much again. I have added on the extra labour to sink, &c., and in that sum included solder; this item is, I presume, some extra angles, for there is not enough for the safes and sinks taken above. The prices given include profit.

16 ft. run. Close copper nailing:—

The value of this, labour, material, and profit, is 3*d.* per foot run beyond the labour, &c., added to sinks and safes, which would only include open nailing.

40 ft. run. Dressing lead to narrow hip-gutter:—

This is an extra labour which should be priced; the items of labour given with lead-laying include only the ordinary work, and this does not come under that head; the labour is to form a narrow shallow gutter under a close-cut or mitred hip—it is worth 4*d.* per foot beyond the labour *allowed, including* profit.

No. 48. Ends of roll bossed:—

This I consider included in the price quoted; they are worth from 6*d.* to 9*d.* each for extra labour and solder, including profit, the price varying with the size.

All taps and pipes to be of the requisite quality and strength, and all the arrangements of the water supply to be executed according to the requirements of the water company, and to the satisfaction of their inspector:—

It is very necessary to have a copy of the rules of all the London water companies for reference, for they differ materially. A little should be added to the prices I am now going to give for pipes, to cover the waste, which is really a small item.

8 ft. run. 1¼ in. middling lead pipe, including joints and fixing:—

This pipe would weigh 3 lb. to 4 lb. to the foot, say 4 lb.; this would come to about 7*d.* at the prices given in the first item of this bill.

	£	*s.*	*d.*
Cost of pipe	0	0	7
Labour, solder, and wallhooks, say	0	0	5
	0	1	0
Ten per cent.	0	0	1¼
	0	1	1¼

I doubt whether there is any solder to this—the joints would go with brass work, &c. Plumbers' work is a difficult one to obtain a cost of that you can rely on, for there is barely one in three who is a really good man, and a comparison of the cost of his labour with that of the other two *would confound* a beginner at estimating.

46 ft. run. 1½ in. middling lead pipe, including joints and fixing :—

1½ in. pipe runs 4 to 5 lb. to the foot; take it at 5 lb.

	£	s.	d.
Cost of 1½ in. pipe, say	0	0	8½
Labour, &c.	0	0	6
	0	1	2½
Ten per cent. profit	0	0	1½
	0	1	4

These are very low prices for pipes, but the price of lead is low; four or five years ago it was varying at from 50 to 75 per cent. beyond the one given.

3 ft. run. 2 in. middling lead pipe, as last :—

This pipe would weigh 6 lb. to the foot; there are lighter pipes than those provided, that are called "middling."

	£	s.	d.
Cost of 2 in. pipe	0	0	10½
Labour, &c.	0	0	7
	0	1	5½
Ten per cent. profit, say	0	0	1¾
	0	1	7¼

This looks like a waste to a sink or an overflow, and there would really be no joints to provide, the one to brasswork being included with this latter, the other end being inserted into a drain or being free outside a wall; the price given includes solder joints, except those to brasswork.

227 ft. run. ¾-in. strong lead pipe, including joints, &c., as last :—

The word "strong" with the West Middlesex Water Company means 3 lb. to the foot.

	£	s.	d.
Cost of pipe, say	0	0	5
Labour, solder, &c.	0	0	4
	0	0	9
Ten per cent. profit, say	0	0	1
	0	0	10

53 ft. run. 1 in. strong lead pipe and joints, &c., as last:—

This pipe requires to be 4 lb. to the foot by the company's printed regulations.

	£	s.	d.
Cost of pipe, say	0	0	7
Labour, &c.	0	0	4½
	0	0	11½
Ten per cent. profit, say	0	0	1¼
	0	1	0¾

39 ft. run. 4 in. diameter, 7 lb. lead soldered soil-pipe tacked and collared, and including soldered joints, &c.:—

This pipe will weigh 7½ lb. to the foot run, to which add 1 lb. for tacks. Although this is described as made by hand, it is almost certain that the mill-drawn soil-pipe would be allowed to be used; it is made from 5 lb. to 7 lb. per foot run, the 5 in. being at the extra I quoted in the first item of this bill. A little more is charged for 7 lb.—i.e about 6*d* per cwt.; these pipes are undoubtedly superior to the hand-made, there being no joint inside for the soil to accumulate on; the only thing the hand-made pipes have to recommend them is that the joint stiffens them.

	£	s.	d.
Cost of mill-drawn pipes, including tacks, 8½ lb. at 2*d*.	0	1	5
Labour, fixing, including soldered joints and soldering on tacks, &c.	0	0	10
	0	2	3
Ten per cent. profit	0	0	3
	0	2	6

If hand-made pipe is required, add 7*d*. per foot, including profit; this is a low price.

No. 3. Extra for bends in 4 in. soil-pipe:—

The cost of these depend on their length, and whether they are single or double bends; these latter are mostly required, and would take about three hours of a plumber and labourer, the plumber at 10*d.* per hour, the labourer at 6½*d.* It is presumed by the word "extra" that sufficient pipe has been allowed, and this is labour and solder only: the extra over hand-made pipe will not come to so much as I hereunder give, by 7*d.* per foot, being the sum allowed for making it. Allow the bend to be about 2 ft. 6 in. long.

		£	s.	d.
Cost of labour. 3 hours	at 1*s.* 4½*d.*	0	4	1½
Say 1½ lb. solder	at 6*d.*	0	0	9
Fire, &c., say		0	0	3
		0	5	1½
Ten per cent. profit		0	0	6½
		0	5	8

No. 4. Extra soldered joints in ¾-in. pipe:—

I have included all soldered joints with the pipes, except those that follow with the brasswork, and will price them as they occur.

No. 3. Extra soldered joints in 1-in. lead pipe:—

The same remark applies to this item.

No. 6. Extra soldered joints in 1½-in. pipe:—

The same remark applies. I do not see where the surveyor can find all these "extra" joints; the joints are to be included with the pipe, according to the description.

No. 1. Extra soldered joint in 2-in. pipe:—

The same remark applies.

No. 3. Extra soldered joints in 4-in. soil-pipe:—

These I should price, for I did not include the extra joints caused by the bends being required. A joint to a 4-in. soil-pipe is a light one compared with those to smaller pipes; they are worth for labour, solder, and profit, 3*s.* each.

No. 7. Soldered ends to ¾-in. pipe:—

These are worth 6*d.* each, including profit.

No. 3. Pieces of 4 lb. lead flashing, soldered to 4 in. pipe:—

These are probably to go round the soil-pipe where it goes through the roof for ventilation; the item is a speculative one as far as the value goes, for it does not state what it passes through, slate or lead.

	£	*s.*	*d.*
Say 4-lb. sheet lead	0	0	7
Plumber and labourer, one hour	0	1	4½
1 lb. solder	0	0	6
Fire, &c.	0	0	2
	0	2	7½
Ten per cent. profit	0	0	3½
	0	2	11

No. 2. 4 lb. lead collars to ends of 4 in. soil-pipes and making good to drain:—

These would cost about the same as the flashings just priced.

No. 5. Small bead-hinged flaps to 1½ in. lead pipe:—

This is a piece of sheet lead cut to the shape of external circumference of pipe, and two-thirds of it hung in a hinge form by beading the edges and cutting them one into the other, and inserting wire in the hollow bead to form a joint like a butt hinge; the other third of the piece of lead being soldered to the end of the pipe, forming, when finished, a flap not unlike the one in a flap-trap to a sewer; one hour of a plumber and mate would be more than sufficient, *P.C.* 1*s.* 4½*d.* The material would cost but little, say 1½*d.* for it, and 2*d.* for profit, making 1*s.* 8*d.* in all. Copper ones may be bought ready for fixing.

No. 1. 1½ in. Beard and Dent's cast lead syphon-trap and soldered joint:—

The cost of this trap would be about 2*s.* to 2*s.* 3*d.*, say the latter; I provide two joints, although only one is given.

	£	*s.*	*d.*
Cost of trap	0	2	3
No. 2, 1½-in. soldered joints	0	3	6
	0	5	9
Ten per cent. profit	0	0	7
	0	6	4

The cost of 1½-in. soldered joint is made up as follows:—

	£	*s.*	*d.*
2 lb. solder	0	1	0
Half-an-hour plumber and mate	0	0	8¼
Firing, &c.	0	0	0¾
P.C.	0	1	9

This amount of solder will vary with the workman.

No. 2. 4-in. diameter Beard and Dent's 8-lb. lead syphon-traps, and one soldered joint and fixing:—

These are heavy traps and would cost about 9*s.* each net.

	£	*s.*	*d.*
Cost of trap	0	9	0
One 4-in. joint, *P.C.*	0	2	9
	0	11	9
Ten per cent. profit	0	1	2
	0	12	11

No. 1. 1 in. brass washer, plug and chain, and soldering to lead sink:—

	£	*s.*	*d.*
Cost of washer, &c.	0	2	6
One joint, including dishing	0	1	9
Half a yard of chain, and fixing	0	0	4
	0	4	7
Ten per cent. profit	0	0	5½
	0	5	0½

No. 1. ¾-in. brass screw union with fly-nut for iron, and joint to lead pipe :—

	£	s.	d.
Cost of ¾-in. union	0	1	6
One ¾-in. soldered joint	0	1	0
Jointing to iron with red lead, &c...	0	0	3
	0	2	9
Ten per cent. profit	0	0	3½
	0	3	0½

No. 1. 1-in. brass screw union with fly-nut for iron, &c., all as last :—

	£	s.	d.
Cost of 1-in. union, &c.	0	2	2
One 1-in. soldered joint	0	1	3
One red lead ditto	0	0	3
	0	3	8
Ten per cent. profit	0	0	4½
	0	4	0½

No. 2. 1¼-in. brass unions, &c., all as last :—

	£	s.	d.
Cost of 1¼-in. union	0	2	6
One 1¼-in. soldered joint	0	1	6
Red and white lead joint	0	0	3
	0	4	3
Ten per cent. profit	0	0	5
	0	4	8

No. 2. ¾-in. brass screw-down stop-cock and soldered joints :—

	£	s.	d.
Cost of cock	0	3	0
Two ¾-in. soldered joints..	0	2	0
	0	5	0
Ten per cent. profit	0	0	6
	0	5	6

No. 1. 1-in. brass screw-down stop-cock and soldered joints :—

	£	s.	d.
Cost of 1-in. stop-cock	0	4	6
Two 1-in. soldered joints	0	2	6
	0	7	0
Ten per cent. profit	0	0	8½
	0	7	8½

No. 3. ¾-in. brass screw-down bib-taps, with screw ferrule and soldered joints :—

	£	s.	d.
Cost of ¾-in. screw-down bib and ferrule ..	0	3	6
One ¾-in. soldered joint	0	1	0
Screwing in tap after, say	0	0	2
	0	4	8
Ten per cent. profit, say	0	0	6
	0	5	2

No. 1. ¾-in. brass screw-down bib-tap, with screw nozzle and union for hose :—

Add to the last item 1*s.* for nozzle and union, 3*d.* more for labour, and, say 2*d.* for profit—making 6*s.* 7*d.* in all.

No. 1. Antill's 4-in. cast-lead trap, with brass grate and soldering to stone sink :—

The cost of a 4-in. Antill's patent trap is 3*s.* There is an evident error in describing it to be soldered. It would have to be fixed with red-lead, putty, or cement.

	£	s.	d.
Cost of trap	0	3	0
Fixing, say..	0	0	9
	0	3	9
Ten per cent. profit, say	0	0	4½
	0	4	1½

No. 1. Antill's trap, &c., as last, but fixing to lead sink :—

To the price of the last item add for dishing out and soldering in 2*s.*, and profit 3*d.*, making 6*s.* 4½*d.* in all; say 6*s.* 6*d.*, as there is only one.

No. 1. ½-in. Underhay's self-closing brass lavatory tap, with screw ferrule, elbow and union, and fly-nut for marble top, and joint to lead :—

	£	s.	d.
One ½-in. spring tap, with screw ferrule ..	0	5	6
One ½-in. soldered joint	0	0	9
Three red-lead putty ditto	0	0	6
Elbow, with union and fixing	0	4	9
	0	11	6
Ten per cent. profit	0	1	2
	0	12	8

I do not think a ferrule would be required if an elbow is used; I have, however, priced it.

No. 2. ¾-in. Underhay's brass equilibrium ball-valves and copper ball, and soldered joints :—

	£	s.	d.
Cost of ¾-in. valve and ball	0	6	2
Cost of one ¾-in. soldered joint	0	1	0
	0	7	2
Ten per cent. profit	0	0	8½
	0	7	10½

I have here provided the dearest and best. There are several prices for these valves.

No. 1. White glazed earthenware oval basin and trap, set in brickwork in cement, and making good to drain, and putty joint to lead pipe :—

These may be purchased as low as 2*s.* 3*d.* each, which is a very low price.

	£	s.	d.
Pan and trap, say	0	3	0
Labour and materials, setting..	0	5	0
Putty joint to pipe	0	0	6
Cement joint with drain	0	0	6
	0	9	0
Ten per cent. profit..	0	0	11
	0	9	11

No. 1. White glazed lavatory basin, with 1-in. brass washer, plug, and chain :—

	£	s.	d.
Cost of 14-in. basin	0	2	9
1-in. washer, &c.	0	2	10
Fixing latter	0	0	6
Bedding basin in red-lead putty	0	0	9
1-in. soldered joint to pipe	0	1	3
	0	8	1
Ten per cent. profit..	0	0	10
	0	8	11

No. 1. Galvanized cast-iron water waste-preventing cistern of approved make, and including all joints and bearers, and chain and ring, handle, and fixing complete.

There are a great many varieties of waste-preventing cisterns, varying from 8*s.* 6*d.*, complete (not galvanized) up to 30*s.*; a very good one can be purchased for 21*s.*, galvanized and complete.

	£	s.	d.
Cost of cistern	1	1	0
Labour, fixing, including joints, one ½-in. and one 1¼-in. one ¾-in. to overflow	0	6	6
Cost of two brackets, chain, and ring	0	3	0
	1	10	6
Ten per cent. profit..	0	3	1
	1	13	7

I have presumed that all the pipe is taken. These waste-preventers should have an after-flush, which is not described or taken. The syphon system is certainly the best.

No. 2. Tylor's best quality valve closets with white basin, *brass* sunk dish, ivory porcelain handle, and 1 in.

waste-not regulating valve, and including all joints and fixing complete :—

	£	s.	d.
Cost of closet	4	10	0
Fixing, including joints	0	9	0
	4	19	0
Ten per cent. profit	0	10	0
	5	9	0

No. 1. Galvanized wrought-iron riveted cistern to hold 200 gallons, with angle-iron round top and tie-bar, including all perforations, and hoisting and fixing complete :—

The cost of a cistern of this description delivered is 3*d.* per gallon.

	£	s.	d.
Cost of cistern	2	10	0
Three holes cut	0	2	3
Tie-bar and riveting (not included in price given above)	0	3	6
Hoisting and fixing	0	2	6
	2	18	3
Ten per cent. profit	0	5	10
	3	4	1

The cost of cisterns will, of course, vary with the market prices of iron and zinc.

No. 1. 300 gallon cistern as last, and hoisting and fixing on second floor :—

The cost of this will be 2¾*d.* per gallon, exclusive of the tie-bar.

	£	s.	d.
Cost of cistern	3	8	9
Cost of tie-rods..	0	3	6
Three holes	0	2	3
Hoisting and fixing	0	3	6
	3	18	0
Ten per cent. profit	0	7	10
	4	5	10

I have provided the same price for fixing and tie-bar for this as for the smaller one. The difference is scarcely worth adding; in a special quotation for such cisterns the price would include the tie-bar.

Allow for making connection with company's main, and including ¾-in. brass screw ferrule and soldered joint, and opening and making good road, and paying fees.

This fee varies, like all items connected with the water supply, with the company in whose district it lies. The charge by the West Middlesex Company is about 15*s.* for opening the ground, providing ferrule and stop cock, and fixing them. This is a very moderate one, the New River charging much higher.

	£	*s.*	*d.*
Fee to company	0	15	0
3 ¾-in. joints	0	3	0
	0	18	0
Ten per cent. profit	0	1	9½
	0	19	9½

It is presumed that all the pipe is taken; for such an item as this I should add a little, for fear there is not enough taken, and a little for any extra digging beyond that done by the company, say 25*s.*

ZINCWORKER.

355 ft. super. No. 16 gauge zinc, laid in the best manner to flats, &c., and including all solder and nails, &c. :—

The usual course is to let this work to a zincworker, or to a company; either of these will lay it complete as described. *The gauge of zinc* is altered of late years, and it is generally *specified by* the old gauges.

16 gauge (old) can be laid complete at a cost of *6d.* labour and solder is worth 1½*d.*, to 2*d.* per foot; the cost of the zinc can be obtained by adding a foot at this gauge, at the present market rate, and thus the cost is got if your own men do it. Allow for waste. The cost of zinc, if let, being 6*d.*, there is only the profit to add to this sum.

60 ft. super. No. 14 gauge zincs in soakers, 12 in. by 8 in. fixed by slaters :—

The cost of this is about 5*d.* per foot super. ; cut to shape, and add 2*d.* for slaters fixing it, making 7*d.* per foot super.

BILL No. 11.

GLAZIER.

51 ft. super. 21 oz. sheet-glass, and glazing in squares under 2 ft. super. :—

The best method for glazing is to let the work to the merchant as "fetched, glazed, and delivered." This saves you risk, and you get it done as cheaply as you would at your own shop; all the prices I give are for "let" work, unless otherwise described. The quality is not here given, and there are *five; 2nds* is usually used The cost is 3½*d.* ; add profit to this.

53 ft. super. 21 oz. best sheet, and glazing as before, but under 4 ft. super. :—

Add nothing for increase of size; the prices given will *include up to* a fair ordinary size; add ½d. for quality, *making 4d.,* and add profit to this.

21 ft. super. 21 oz. best sheet-glass, and glazing under 6 ft. super :—

Price this at the same rate as last.

8 ft. super. 21 oz. sheet, &c., as last, not exceeding 8 ft. to the square :—

Price this at the same.

15 ft. super. 21 oz. matted sheet-glass, and glazing in squares under 6 ft. super. :—

This costs about 2*d.* per foot super. beyond the plain sheet, and add profit—say 6½*d.* in all. Some merchants do not charge as much as 2*d.* in excess of the plain sheet for "matted."

35 ft. super. 21 cz. matted sheet, &c., as last, but under 3 ft. super. :—

Price this at the same rate as the last item.

14 ft. super. 21 oz. matted sheet and glazing as last, but under 7 ft. super. :—

Price this at the same rate.

13 ft. super. Hartley's ⅛-in. rough plate-glass and glazing in squares, under 4 ft. super.

The cost of this is about 3½*d.* per foot super., glazed complete, as in the other items; add profit to this.

11 ft. super. Hartley's ⅛-in. rough, &c., as last, under 5 ft. super. :—

Price this at the same as the last item.

55 ft. super. British polished plate-glass, and glazing in squares under 5 feet super. :—

This is an article that varies very much; the manufacturers and holders often meeting and agreeing to raise and keep the prices to a certain standard, then issuing a new tariff, which is kept to by a few of the foolish ones, who, to keep their promises, sell only by the tariff, until they find out that the larger part of their number is selling as it chooses, to get orders; then a collapse comes and a lower tariff is issued. The same thing is often done by the drainpipe makers with like results. Where there is a large quantity of plate-glass, and if the estimator wishes to get the work, it will be wise to get a price, or a quotation of the best discount off the existing tariff. This tariff is the same with all sellers. The cost of squares under 5 ft. super., glazed, complete, is 1*s.* 7½*d.*, to which add profit.

29 ft. super. British polished plate as before, but under 6 ft. super.:—

The cost of this is 1*s.* 9*d.*, to which add profit as before.

12 ft. super. British polished plate as before, but under 7 ft. super.:—

The cost of this is 1*s.* 10½*d.* per foot super., to which add profit.

155 ft. super. British polished plate-glass, as before, but under 10 ft. super.:—

This is a large item for a house of this size. It is best, when getting a quotation for the actual carrying out of the work, to send the merchant the exact sizes the sheets will be required to be cut. The cost of this item is 1*s.* 11*d.* per foot super., to which the profit has to be added.

18 ft. super. British polished plate-glass and glazing in squares under 9 ft. super., in indiarubber:—

The cost of this, including glazing in indiarubber, is 2*s* per foot, to which add profit.

Leave all glass clean and perfect.

Cleaning the glass was priced at the beginning. A small sum must be provided for replacing broken glass—say 10*s.*

BILL No. 12.

PAINTER.

TWO OILS BEFORE FIXING AND TWO OILS AFTER FIXING, ON THE FOLLOWING:—

224 ft. run. Bar:—

The value of ordinary runs in four oils painting, 12 in. wide and under, is 1*d.* per foot, where the bar and small things are included; and where they are separated, price the bar at ½*d.* per foot, including profit; the cost of 4 oils in common colours, including knotting and stopping, is 8*d.* to 9*d.* per yard, and the value, say with profit, 10*d.* per yard super. Feet run I should price 1¼*d.*, except the item of narrow ones.

135 ft. run. Rain-water pipe:—

Price this at the 1¼*d.* given above; this sum includes profit.

No. 16. Bends:—

There is very little extra in these; 2*d.* will cover it inclusive of profit.

No. 1. Head:—

The pipe is almost sure to be taken up to the eaves gutter, so there is only the additional surface, say 6*d.* including profit.

315 ft. run. Eaves gutter, in and out:—

This (4 in. by 3 in.) girts about 18 in., measured both sides, say 1½*d.* per foot, including profit.

No. 13. Angles :—

This should not be priced; the item of "angles" in "Smith" is "extra only." The gutter is taken through—i.e. angles measured in.

KNOT, STOP, PRIME, AND PAINT FOUR OILS ON THE FOLLOWING :—

415 yards super. Woodwork (generally) :—

This and the following items have, according to the heading, to be painted five times: to the price given for four coats add 2½*d.* per yard; this makes 1*s.* 0½*d.* per yard super., including profit.

125 ft. run. Skirting :—

The price of 1¼*d.* per foot run, including profit, will cover this, as a lot of it will be under 12 in., and the difference will cover the cost of the other coats. Some surveyors bill these "runs" in *yards:* it will be necessary to look for this to avoid error, if you are pricing in haste.

125 ft. run. Stair margin :—

Add ½*d.* to the price of the last item for labour on this, including profit,

198 ft. run. Turned balusters :—

Price these at the same rate as given for the runs, 1¼*d.*, including profit; they are more trouble, being turned.

No. 114. Frames :—

It is mostly the custom for surveyors to double the frames for painting; this item, where it is done, representing 57 frames painted both sides. It would be very much better if surveyors in *all* cases stated clearly what they had done, this item, where priced by the two lowest estimators differently—i. e. the one pricing for one side painting and the other for two, might be sufficient to lose the careful one the work. There is very little doubt that in this case 57 is the number of the frames. No ordinary dwelling would have anywhere near 114 frames in it. I have had to price many sets of quantities for public or large buildings, where experience cannot tell what is intended, or guess which is correct—one side or two. In some cases the surveyors say "one side," or "both sides." A fair average for frames is about 2½ yards, or, say, about 22 ft. run; price this at ¾*d.*, including profit for one side, exclusive of the sashes, which are taken farther on; if the frames are supered, about two-thirds only of the price of 10*d.* should be used for one side.

No. 2. Large frames:—

Add 50 per cent. to the last price.

No. 8. Three light frames:—

Price at twice the item of "114 frames."

No. 2. Nine light ditto:—

A very unsatisfactory description, sometimes the Joiner's Bill will assist with these items, needing a better one.

Price at three times the first item of frames.

No. 17. Dozen squares:—

These are worth about (if ordinary squares) 2*s.* 6*d.* per dozen, including profit.

No. 28. Sash sheets:—

Price at 4*d.* each; the description is bad. This price includes profit.

No. 2. Stone chimney pieces :—

Price these at 1½ yards super., at 10*d.*, including profit.

The last item concludes the bill of quantities except the "Summary," into which the bills have to be carried and cast together, and the commission and lithography, &c., added; there is, at times, an item or two in the summary after the bills, and before the cast, to price, but they generally tell their own tale.

A few further words of advice before concluding this series. Be sure to have the extensions and casts checked by a careful and competent man, and, if possible, rough checked again, to see that no large error has been passed over—feet priced for yards, or *vice versa*, the cast of the *pounds* correct, &c.

FINIS.

INDEX.

A

PAGE
Additions and Alterations, Fees for ... 4
Air Bricks ... 24
Angles (iron gutter, 4 in. by 3) 129
  Do. (do. 5 in. half-round) 121
  Do. Soldered ... 140
Antill's Traps ... 148
Arches, Gauged ... 26
  Do. Relieving ... 23
  Do. Segmental ... 23
  Do. Trimmer ... 16
Architrave ... 84
  Do. Grounds ... 85
Arris in Stucco ... 135
Asphalte Damp Course ... 19
Asphalted Hair Felt ... 50
Attend all Trades ... 4
  Do. Bellhanger ... 127
  Do. Gasfitter ... 5
  Do. Plumber ... 93

B

Backings, Rough Deal ... 47
  Do. to Architraves ... 89
Back Joint to York Step ... 35
Ball Cock ... 3
Ballast ... 9
  Do. Burnt... 9
Ball Valve, Underhay's ... 149
Baltic Fir ... 43
Balusters ... 101
  Do. Wrought Iron ... 123
Bar Iron ... 122
Bases to Deal Architrave ... 85
Bath Enclosure ... 75
Bearers for Bath Top ... 105
Beard and Dent's Traps ... 146

PAGE
Beart's Facings ... 25
Bed and Point Frames ... 22
Bends, Drain Pipe ... 12
  Do. Rainwater Pipe ... 117
  Do. Soil Pipe ... 143
Bellhanger ... 125
Bell Board ... 127
Bell Pulls ... 125
Bells, Electric ... 127
  Do. Pneumatic ... 127
Bib Cock ... 148
Bill Posting, Value of Hoard for 5
Birdsmouth, Cutting to ... 19
Blue-ash Mortar, Pointing in 25
Boarding ¾ in. Rough ... 46
  Do. ¾ in. Matched ... 47
  Do. 1 in. Rough... 48
Bolts, Barrel ... 108
  Do. Brass ... 109
  Do. Neck ... 108
  Do. Wrought Iron ... 124
Bracketing, Fir ... 49, 50, 54
Brass Furniture (Lock) ... 113
Brass Door Knob (Entrance) 116
Breaking-up Roads ... 11
Bressummer, Fir ... 44
Bricks, Carting and Stacking 15
  Do. Cost of ... 15
  Do. Quantity to a rod ... 14
  Do. Do. in Garden Walls 14
Bricklayer ... 14
Brick Paving ... 17
Brick Riser ... 20
Bridging Pieces, Fir ... 54
Building Supply (Water) ... 3
Bull Nose (Deal Stairs) ... 100
  Do. (Cupboard) ... 77
Butts, Brass ... 106
  Do. Rising ... 107
  Do. Wrought Iron ... 106

C

PAGE
Camber Slips 45
Capping, Deal... 80
Carpenter 43
Casements, Deal ... 62, 63, 65
  Do. Small 67
Casement Fastenings 114
  Do. Espagnolette ... 115
Cast Iron Gutter, 4 in. by 3 in. 119
  Do. 5 in. half-round ... 120
Cellars, Fee for New ... 4
Cement, Brickwork extra only in 15
Cement Fillet to Verge ... 41
Cement Joggle in Stone ... 30
Centre Flowers 133
Centring to Apertures ... 45
  Do. to Soffit, 4½ in. ... 45
  Do. to Trimmers... ... 45
Cesspit, Brick 14
Chamfer on Brick 19
  Do. on Fir 51
  Do. do. *Circular* ... 51
  Do. in Keen's 137
Chase-cut in Brick 19
Chimney-bars 122
Chimney-pieces ... 38, 39
Chimney-pots 24
Circular-cut Brickwork ... 26
Circular Slating 41
Cisterns, Galvanized ... 150, 151
Clamped Flap and Frame 75, 91
Clean Premises 4
Clean Windows 4
Clear away Rubbish 4
Closet Seat in Deal 74
Coal Plate (Hayward's) ... 122
Completion, Time for ... 6
Concrete 9
  Do. 6 in. thick 10
Connect Water 152
Connection with Sewer ... 14
Contract, Refer to 6
Copper Nailing 140
Corbels, Portland Stone ... 31
Core, Hard, under Paving ... 8
Core and Parge Flues ... 23
Cornice, Plaster 132
  Do. Moulded, in Fir ... 87
Cradle for Lavatory 89

PAGE
Cross Garnets 108
Cross-tongue Joint 73
Cross-tongued Landing (stairs) 94
Cupboard Fronts 75
  Ditto Turnbuckle ... 115
Curb, Tooled York 33
  Do. Skylight in Deal ... 75
Cut away for Gasfitter ... 5
Cutting Chase 19
  Do. for 6-in. Reveal ... 26
  Do. Skewback ... 19, 26
  Do. Rough 19
Cut and Pin Ends 21
  Do. Landing 20
  Do. Shelf 19
Cut and Rubbed Brick Weathering 27

D

Dangerous Structures, Fees for 4
Dantzic Fir 43
Damp Course 19
Deal Sink 90, 91
Deep Digging 8
Digging 7
  Do. for Drain-pipes 10, 11
Discount, Trade 6
  Do. Doulton's Gullies ... 13
District Surveyor's Fees ... 3, 4
Doors, Dwarf Cupboard ... 68
  Do. do. Two-panel 69
Doors, Four-panel Square-framed 69
Doors, Four-panel for Glass 69, 70, 71
  Do. do. Bead Butt and Square-framed ... 69
Doors, moulded two sides ... 70
Doors, braced and filled in with Battens 70
Doors, three Panels for Glass 70
Door Frame 82
Dovetailed backings to Architraves 89
Dovetailed Deal Sink... 90, 91
Dowels, Iron 38
  Do. Slate 31
Drains 10
Drain-pipes, Cost of ... 10, 13

PAGE
Drain-pipes, Labour Laying ... 10
Draining Grooves 91
Dresser 92
Drip to Deal Gutter 54

E

Eaves Fillet, Deal 51
Electric Bells 127
Ends Cut and Pinned... ... 21
Ends of Rainwater-pipe made good to Drain 13
Ends of Treads & Risers Housed 99
Do. Cut and Mitred ... 99
Enrichment in Plaster ... 132
Espagnolette Casement Fastening 115
Eyes, Brass Flush Plate ... 115
Excavator 7
Excavating for Drain-pipe ... 10
Expenses 5
Extras and Omissions... ... 2

F

Facings 25
Fair Face and Struck Joint ... 16
Fair Ends of Steps 36
Do. Stone Curb ... 34
Do. Stone Sills 29, 30, 33
Fan for Hoard... 5
Fan-light in Deal 61
Fascia, Deal Wrot 52
Felt, Asphalted Hair... .. 50
Ferrule, Brass 152
Fillets, Fir 51
Filling to Half-brick Trimmers with Concrete 16
Fill and Ram 8
Fir Bracketing ... 49, 50, 54
Fir Bressummer 44
Do. Bridging Pieces ... 54
Do. in Curved Ribs ... 57
Do. in Floor Joists ... 45
Do. in Ground Joists ... 44
Do. in Partitions 45
Do. in Plates, Lintels, and Wood Bricks 43
Do. in Ridge 49
Do. in Roofs 45

PAGE
Fir Timber 43
Do. Wrot 54
Do. Wrot and Framed ... 57
Firring to Falls 48
Do. Rafters 46
Flat-trap and Fees 14
Flashings, Lead 139
Floated Face 17
Flooring 58
Flues, Cored and Parged ... 23
Four-and-a-half Walls ... 16
Footway for Hoard 5
Frames, Bed and Point ... 22
Frame, Door 82
Framed Deal Legs 82
Framing, Spandril 71
French Polishing 103
Frost, Work injured by ... 2
Furniture, Brass Lock... 110, 113
Do. China ditto ... 111
Do. White & Gold ditto 113

G

Galvanized Cisterns 150
Garnets, Cross 108
General Conditions 6
Glazier 153
Glass, Sheet 153
Do. Matted... 154
Do. $\frac{1}{8}$ in. Rough 154
Do. Plate 154, 155
Gratings, Wrought Iron ... 124
Green Slates 40
Grey Lime 9
Groove in Deal 76
Do. in Oak 66
Do. in York Stone ... 32
Ground Grey Lime 9
Ground Joists 44
Grounds, Deal (narrow) ... 77
Gauged Arches 26
Guard Bars 123
Gullies 13
Gutter Boards and Bearers ... 49
Do. Cast Iron, 4 in. by 3 in. 119
Do. do. 5 in. half-round 120
Do. Drip 54
Do. Lead 139

H

PAGE
Half-brick Walls 16
Do. Trimmers 16
Handrail, Mahogany 101
Do. Wrought Iron, half round 123
Hard Core 8
Head, Rainwater 118
Heading, Joint... ... 96, 102
Hearths, York... 31
Do. Notchings in ... 36
Herringbone Strutting ... 53
Hinges 106
Hip-mitred (Slating) 41
Hoardings, Cost of 5
Do. Value of for Bill Posting 5
Holes Cut for Coal Plate ... 37
Do. for Basin, in Marble 40
Do. through Brick ... 23
Do. in W. C. Seat, Deal 88
Do. do. Mahogany 104
Honduras Mahogany 103
Hook Rebate 65
Hot Water, Attend on ... 5

I

Insurance 2
Iron Dowels 38
Do. Tongue 67
Ironmongery 106

J

Jamb Linings 81
Japanned Casement Stay ... 116
Joiner 58
Jointed ends of Stone Sills ... 29
Do. Steps ... 36
Joggle Joints (Stone) 30
Junctions, Drain-pipe... ... 12
Do. Sewer 14

K

Keen's Angle 137
Do. Cement 137

PAGE
Keen's Chamfer 137
Do. do. Circular ... 137
Do. Narrow Return ... 137
Kitchen Dresser 92

L

Labour to Arches 26
Do. Brickwork 15
Do. Concrete 9
Do. Fir ... 43, 46
Do. Portland Stone ... 28
Do. Slating 40
Do. Stairs in Deal ... 95
Do. Zincwork 153
Landing, Cut and Pin ... 20
Do. Self-faced York ... 32
Do. for Deal Stairs ... 94
Lathing 129
Lath, Plaster, and Set Ceilings 129
Lath, Plaster, Float, and Set Partitions 130
Lath, Plaster, Float, and Set Narrow 130
Lath, Plaster, Float, and Set Ceilings 130
Lath, Plaster, Float, and Set Ceilings Sloping 130
Lath, Plaster, Float, and Set Soffits of Stairs 131
Lavatory Basin 150
Do. Cradle 89
Lead 139
Lead Weights to Sashes ... 64
Lead Pipe 141, 142
Leave Premises Clean ... 4
Ledged Doors 68, 72
Letting Hoard... 5
Levelling Concrete 10
Level and Ram Surface ... 10
License for Hoard 4
Lifts, Sash 115
Lime, Price of 9, 15
Limewhite 16
Linings, Rebated Deal 78, 81
List Prices 6
Locks, Cupboard 109
Do. Dead (Lever) 112
Do. Draw-back 111
Do. Furniture 113

PAGE
Locks, Mortise 111
Do. Mortise Latch 112
Do. Rim 110
Long Arms 117

M

Mahogany Bath Top 105
Do. Handrail 101
Do. do. Ramped ... 102
Do. Seat and Riser ... 103
Do. Skirting 104
Do. Thumb Moulding... 103
Do. W. C. Seat... ... 103
Make good after Gasfitter ... 5
Do. Defects 2
Do. Rainwater Pipes 13
Do. Slating 42
Marble Lavatory Top... 39, 40
Mason 27
Matched Battens 48
Method of Payment 6
Mitred Hip in Slating ... 41
Mitres, Brick Moulded Course 27
Do. Cove in Stucco ... 133
Do. Deal Capping ... 80
Do. do. Fascia 52
Do. do. Moulding (4 by 3) 86
Do. do. do. (6 by 3) 87
Do. do. do. (5 by 4) 88
Do. Plaster Cornice ... 133
Do. Splay in Plaster ... 132
Do. Weathering in Cement 137
Moulded Architrave 84
Do. Bases to ditto ... 85
Do. Course in Brick ... 27
Moulding Deal 55
Moulded Ends (Deal Treads) 99
Moulded Horns to Sashes ... 67
Mouldings, Large Deal 86, 87
Mouldings, Loose (for Glass)... 77
Moulded Tops to Newels ... 100
Moulded Wall String 96
Mortar 15
Mortises in Stone 31

N

Narrow Return in Stucco ... 135
Do. in Keen's ... 137

PAGE
Net Prices 6
Newel, Deal Turned 98
Norfolk Latch 112
Nosing to Deal Landing ... 95
Do. to Roof Boarding ... 53
Notching Hearths 36
Notchings in Window Boards 88

O

Opening Ground for Water ... 3
Openings in Party Walls, Fees for 4
Outlets to Cast Iron Gutter (4 in by 3 in.) 119
Outlets to Cast Iron Gutter (5 in. half-round) 121
Oversail One Course of Bricks 26

P

Painter 156
Parging Flues 23
Partitions, Fir-framed ... 45
Paving, Cement 17
Do. Brick Flat 17
Do. Tile 18
Do. Tooled York 33
Pendants to Turned Newels ... 99
Perforated Bricks 25
Pilaster, Deal 73
Planing Fir 46
Plank and Strut Excavation ... 7
Plasterer 128
Plaster Cornice 132
Do. Enrichment 132
Plate Glass 154, 155
Do. Rough 154
Plugging, Deal 76
Plumber 139
Pneumatic Bells 127
Pointing, Rule-joint 25
Polishing Mahogany 103
Portland Cement 136
Do. do. Moulding ... 136
Do. Stone 27
Portland Cement Weathering 136
Portmadoc Slating 41

PAGE
Preliminary and Provisions ... 2
Prime Cost (P.C.) as to Profit on 6
Provisions 6

Q

Quadrant Ends in Deal Stair-treads 100
Do. Stay Bar 116
Quarries, Paving with ... 18
Quirk in Plaster 131
Do. in Stucco 135

R

Rainwater Pipe 117
Ramp in Wall Strings... 96, 97
Rake and Point Flashings ... 20
Rebate in Deal 66
Rebated Door Linings ... 81
Do. Window do. 78
Red Facings 25
Relieving Arches 23
Render, Float, and Set to Walls 128
Do. do. Narrow 129
Do. do. Circular 129
Ridge, Fir 49
Riser, Brick in Cement ... 20
Rod of Brickwork, Number of Bricks required for a ... 14
Roll, Deal 52
Roofs, Fir Framed-in... ... 45
Rough Boarding to Roofs ... 46
Do. Fillet 51
Rough Cutting 16
Do. do. Birdsmouth ... 19
Do. do. Chamfer ... 19
Rounded End Edge of Deal... 76
Do. Mahogany ... 104
Do. Slate Skirting... 42
Do. Nosing to Roof Boards 53
Rubbed Arches 26
Do. Hearths 31
Do. York Step ... 34, 35, 36
Rule-joint Pointing 25

S

Sashes and Frames in Deal 61, 64, 65
Sash Fastening 114

PAGE
Sash Lift 115
Sawn York, 1½ in. 38
Do. 2 in. 39
Do. 3 in. 33
Do. 6 in. 36
Screws 106
Scrub Floors 4
Seat and Riser to W.C. in Deal 74
Do. do. Mahogany 103
Segmental Arches 23
Self-faced York Landing ... 32
Do. Paving ... 32
Semi-circular Ends to Deal Treads and Risers 100
Setting Gullies... 13
Setting Stove 23
Sewer Connection 14
Sheds, Temporary 5
Shelf, Deal 72, 73
Do. do. Chimney-piece ... 92
Do. Slate 42
Sheet Glass 154
Shoes to Rainwater Pipe ... 118
Sicilian Marble ... 39, 40
Sills, Made good to 21
Do. Oak 66
Do. Portland Stone ... 27, 29
Do. York 33
Sink Cover in Deal 91
Do. Deal 90
Do. York 37
Skewback Cutting 19
Skirting in Deal ... 59, 60
Do. Circular 61
Do. Slate 42
Skylight Curb... 75
Do. Deal Moulded ... 61
Slate Cantilevers 42
Do. Dowels 31
Do. Shelf 42
Do. Skirting 42
Slater and Slate Mason ... 40
Slating, Penrhyn or Bangor ... 41
Do. Portmadoc 41
No. Whitland Abbey ... 40
Slopes to Sides of Excavation 7
Smith 117
Smith's Water Bar 116
Soil-pipe, Lead 143
Soldered Angles 140

PAGE

Soldered Ends (Pipe)... ... 145
Soldered Joints ... 141, 144
Spandril Framing 71
Specification, Refer to ... 6
Splay Linings 78
Splay Rebate in Deal... ... 66
Springer, Feather-edged ... 51
Staffordshire Tile Paving ... 18
Staircase, Deal 94
Stay-bars for Casements 115, 116
Step, Rubbed York 34
Stock Bricks, Cost of... ... 15
Stone, Portland 27
 Do. York 31
Stop Ends to Cast Iron Gutter 120, 122
Stop Ends to Cove in Stucco 135
 Do. Plaster Cornice 133
 Do. Weathering of Stone Sills 29
Stop Cock 147
Stove Setting 23
Strings to Deal Stairs... ... 97
Struck Joint Pointing... ... 16
Strutting Excavations... ... 7
Strutting, Herringbone ... 53
Stucco 133
Sunk Lifts for Sashes 115
Surface Trenches, Digging to 8
Syphon Traps 13
Swan-neck Bends, Rainwater-pipe 117

T

Tar Paving 10
Templates, Self-Faced York ... 36
 Do. Tooled York ... 37
Temporary Sheds 5
Terra Cotta Chimney-pots ... 24
Thicknesses in Deal 72
Throat in York Stone ... 32
Tile Paving 18
Tilting Fillet 51
Time for Completing... ... 6
Tooled York Curb 33
 Do. Treads 34
Tongued Angle in Deal 76, 88, 96
Tongue, Wrought Iron ... 67
Trade Discount 6

PAGE

Traps, Doulton's 13
 Do. Redcliffe 13
 Do. Syphon... 13
Trap Door 68
Traversing Deal 48
Treads and Risers in Deal 94, 95
Treads, Tooled York 34
Trench for Water-pipe ... 8
Turned Balusters 101
Turned Mahogany Tops to Newels 100
Turnbuckles 115
Turning 56, 98
Turning Pieces 45
Twice Lime White 16
Twice White Ceilings... ... 128

U

Underhay's Ball Valve ... 149
 Do. Lavatory Tap ... 149
Union, Brass Screw 147

V

Valley Fillet 51
Vestry Charges (Hoard) ... 4
 Do. (Sewer) ... 14

W

Wall String Deal Stairs ... 96
Washer, Plug, and Chain ... 146
Waste in Brickwork 16
 Do. on Stone ... 28 to 39
 Do. on Timber ... 43, 44
Waste-preventing Cisterns ... 150
Water for Works 3
Water Bar (Smith's) 116
Water Closet Apparatus ... 151
 Do. Pan and Trap ... 149
Water Closet Seat (Deal) ... 74
 Do. (Mahogany) 103
 Do. Made to Remove 89, 105
Weathering, Cut and Rubbed Brick 27
Wheel and Deposit 7
White Brick Facing 25
 Do. Moulded Course 27

PAGE
Whiten Ceilings 128
White and Gold Furniture ... 113
Whitland Abbey Slates ... 40
Window Back, Plain Deal ... 74
Do. Moulded ... 74
Window Board and Bearers 74, 79
Window Linings in Deal ... 78
Working Expenses 5
Wrot Deal 72
Do. Fir 46, 54
Do. Irregular Shape ... 90
Wrought Iron Balusters ... 123
Do Bolts 124
Do. Chimney Bars 122
Do. Framed Grating 124
Do. Guard Bars ... 123
Do. Handrail ... 123

Y

PAGE
York Stone Chimney Piece 38, 39
Do. Coal Shoot ... 37
Do. Hearths 31
Do. Paving (Self-faced) 32
Do. Sill 33
Do. Sink 37
Do. Step (Rubbed) 34, 35, 36
Do. Stone 31
Do. Templates 36, 37

Z

Zinc Flats 152
Do. Labour to 153
Do. Soakers 153
Zincworker 152

LONDON: PRINTED BY WILLIAM CLOWES AND SONS, LIMITED,
STAMFORD STREET AND CHARING CROSS.